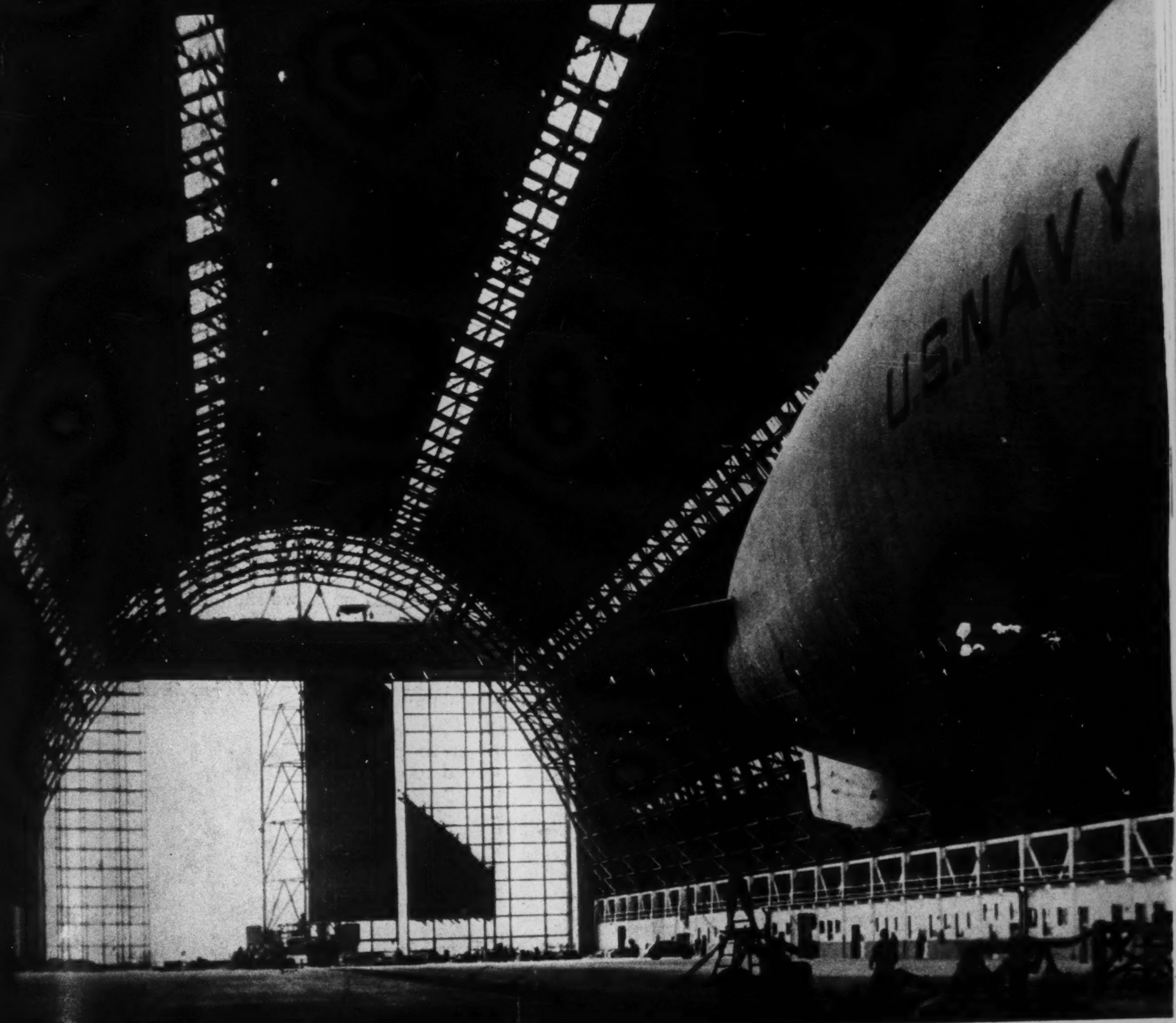
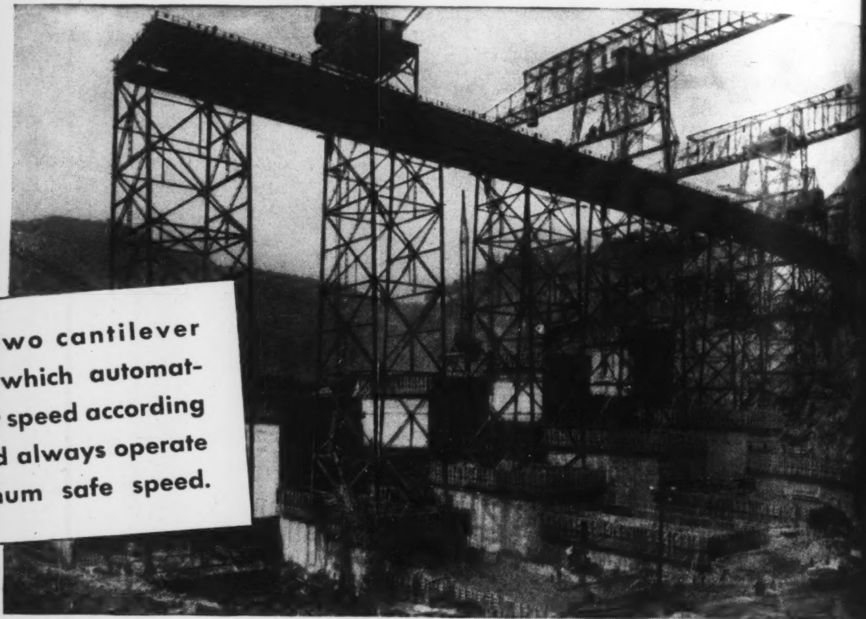
ENGINEERING NEWS-RECORD

Big timber blimp dock put into service before completion — *See p. 3.*



Two Cantilever Cranes That WEIGH THE LOADS They Li



The story of two cantilever gantry cranes which automatically vary their speed according to the load, and always operate at the maximum safe speed.

By

M. A. WHITING

Industrial Engineering Division, General Electric Company

A NEW type of electric equipment on two large cantilever gantry cranes fulfills the need of a dam builder for equipment which enables him to pour concrete safely at a faster rate than ever before.

These cranes are furnished with 3-phase a-c power supply. They have a 300-foot "wingspread," operate along the top of a trestle 250 feet high, and can handle 4-yard buckets of concrete as readily as you can handle a pail.

The secret of their speed and accuracy lies in their unique hoisting equipment, which in effect weighs each load. The "brains" of this weighing operation is a development called the cross-flux exciter—about the size of a bushel basket. This device measures the load on the crane continuously and automatically, and controls the hoisting and lowering speeds accordingly, operating on the a-c power supply. *The lighter the load, the higher the speed; the heavier the load, the lower the speed—both hoisting and lowering.* This feat has heretofore been considered impossible except by the use of a complicated battery of sensitive load-responsive relays.

When the crane picks up a bucketful of concrete, the operator does not need to worry about safe operating speeds. The crane assumes that responsibility. After the load of concrete has been lowered into position and dumped, the operator returns the empty bucket to the starting point at speeds up to twice as high as those used in handling the full bucket. The cross-flux exciter "feels" the change of load, and controls the speed accordingly.

In case the bucket jams and refuses to budge, the electrical "brain" permits the crane to pull just so hard and no harder. That is to protect against picking up a load too heavy for the crane, which might overtu when the load is trolleyed out the end of one of the arms.

The trolley operation is also *usual* in that the customary rela and protective devices are dispens with. Instead, a small motor size of that on a washing machi irons out the accelerating peak assuring a smooth rate of change speed under all conditions. This is valuable asset in limiting the swi of the heavy bucket while trolleyin

This is another example of the a plication of new techniques to sol a construction problem created today's needs. If you have a diffic problem where the experience a skill of G-E engineers can be of hel we should like to work with you. Ge *eral Electric Company,* Schenectad New York.

★

The best investment in the world is in this country's future—

BUY WAR BONDS

★

GENERAL ELECTRIC

655-34-162

he Week In Engineering and Construction

NEERING NEWS-RECORD • NOVEMBER 11, 1943 • VOLUME 131 • NUMBER 20

ore steel now available r construction operations

l released by termination of controls and cancella- of war projects can be obtained without an order n the controlled materials section of the WPB.

result of increasing numbers of terminations and cancellations, -back of orders in war industrial greater quantities of "surplus re becoming available. Construc- tractors are entitled to apply for n of the surplus, and the amount uire in this way is over and above ich is available to them from stock—so designated to distin- t from surplus. They need not ontrolled-materials" orders cover- ir request; and they can make tion by telephone, telegraph, let- personal call, to the nearest War tion Board regional office. In ad- to being entitled to buy, contrac- o can sell surplus steel.

The term "surplus" is used to include both excess and idle steel, excess referring to any supply in excess of 60 days' requirements, while idle steel is that not required either for immediate or anticipated needs.

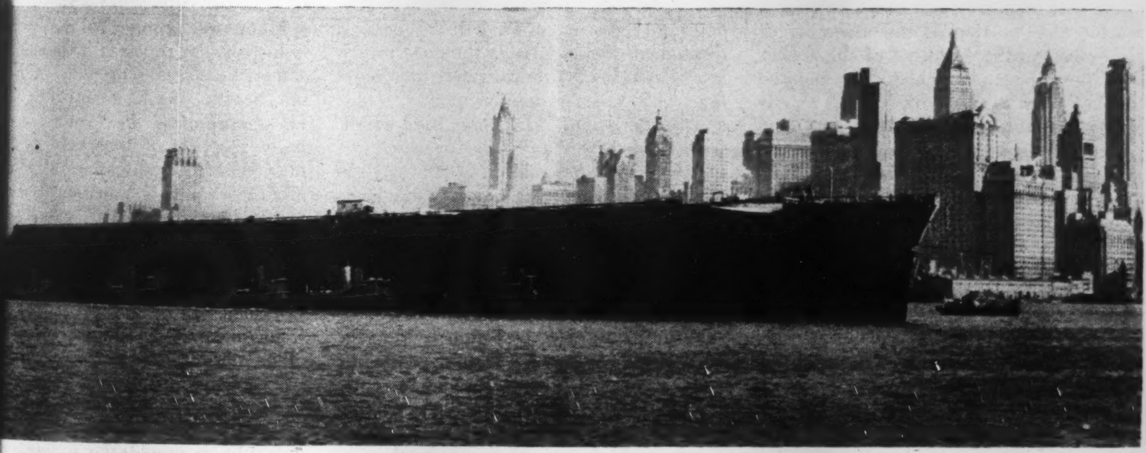
Though the amount reported to the WPB late in October as surplus and available for redistribution amounted to but 389,000 tons, a WPB spokesman pointed out that since reports were made on a voluntary basis, this figure is far below the actual total. The requests WPB is receiving from claimant agencies to move their excess and idle steel, he says, indicate an increasing surplus.

Most plentiful among the stocks reported is sheet and strip, with carbon steel wire coming next; then structural shapes, and after that carbon steel bars, and about seven other shapes. Besides surplus quantities which become available due to termination or cancellation of contracts, and order cut-backs, additional surplus is brought about by changes in design, over-purchases and over-shipments.

Heretofore, this steel has been available to contractors through one central office, the Steel Recovery Branch of the Steel Division located at Pittsburgh. Because of the decentralization of WPB's activities, however, requests for surplus steel are now being handled through the regional offices. The Steel Recovery Branch, therefore, has been liquidated, and its director, R. W. Frey, has been put at the head of a new branch called the Surplus Inventory Branch, which has been set up to assist the regional offices in effecting redistribution of the surplus tonnage. The new branch may request owners of surplus steel to sell to other contractors having a need, but the latter are not compelled to sell.

Surplus steel brings the same price as new steel, except that in the case of the

(*Continued on page* 13)



Press Assn.

Normandie goes to drydock for start of rehabilitation

79,000-ton U.S.S. Lafayette was towed e Hudson to drydock to start the long of rehabilitation for use as a troop The former French liner Normandie en taken over by the Navy and was onverted for use as a troopship when t fire and burned at its pier in Manhattan on Feb. 9, 1942, and subsequently capsized from the water poured into the superstructure to control the blaze.

After months of work the giant liner, second largest ship in the world, was righted by Navy salvagers and the Merritt-Chapman & Scott Corp. (ENR, Aug. 12, 1943, p. 264). To facilitate the salvage all of the superstructure of the vessel was removed leaving the once proud liner looking like a scow except for the way it dwarfs the tug boats alongside.

Salvage on the Lafayette already has cost $4,500,000. It is expected to cost $20,000,000 more and require another year of work.

Contractors seeking new enterprises to help increase war production

Contractors at the fall meeting of the Associated General Contractors urged to utilize their trainer personnel in the maintenance of war plants, outfitting of ships, airplane assembly work and adopting present facilities to new types of production.

Greater assistance to the war effort is being planned in the construction industry through contractors entering a new field of enterprise; that of serving the existing war plants. In a statement of policy at its fall meeting held last week in Chicago, the Associated General Contractors of America, Inc. urged its members to direct their efforts into two channels in this field. One is the maintenance of large war plants engaged in the manufacture of airplanes and ships, the other is the performing of work which must be done within war plants in connection with adapting them to constantly shifting types of production.

Increased output needs

The necessity for such a move at this time was emphasized by Joseph D. Keenan, vice chairman for war production, War Production Board. Contractors entering these new fields of endeavor not only will help increase the country's output of essential war materials, contended Keenan, but they also can use this new work as a means of employment for various units of their organizations until such time as the construction picture returns to normal.

It is contemplated also, said Keenan, that general contractors could sign contracts with manufacturers to take over a considerable portion of the assembly of airplanes and the outfitting of ships after they have been launched. He pointed out that much of this work consists chiefly of the assembling of materials, and construction organizations have the necessary engineering knowledge and technical skill for performing the work. Mr. Keenan expressed the opinion that subcontractors also would be able to play an important part in this diversified program of war production. He also expressed the hope that the need for 500,000 new workers in war industries from now until next February can be made up chiefly from construction organizations.

In reporting on the suggestion announced by Mr. Keenan, Edward P. Palmer, chairman of the Construction Advisory Committee, WPB, said that conferences are being held now with various agencies of the federal government to ascertain how much new construction, reconstruction, maintenance and repair work needs to be done in the present war program as well as for the proper functioning of the civilian economy.

In an analysis of the construction equipment problems of today and of the immediate future, M. B. Garber, director, Construction Machinery Division, WPB, Washington, D. C. asserted that the production of repair parts in limited quantities is now under way, but that no appreciable benefits will be noticeable until the first quarter of next year. Lack of sufficient repair parts for construction machinery has, in the past, necessitated some 30 percent being used as standby equipment, said Garber. However, with the hoped for steady increase in repair parts, the necessary percentage of standby equipment can be reduced. This will release a greater amount of construction equipment for a more direct participation in the war effort.

Little hope was held by Mr. Garber that the construction equipment now being used by the armed forces, both in this country and abroad, would be available to the construction industry after the war. Much of this equipment is being rebuilt by the Army and Navy for overseas construction. Nearly 90 percent of new equipment is being sent abroad, continued Mr. Garber, while a large portion of the remaining 10 percent is being allocated to mining and logging.

Highway construction

Tremendous programs of highway repair and reconstruction will be needed throughout the country in the near future in order to keep our wartime traffic moving. This was the opinion of S. C. Hadden, commissioner, Indiana State Highway Commission and vice president of the American Association of State Highway Officials. He urged that emphasis should be placed on the needs for road improvement and construction rather than on the preparation of such programs merely to create employment for men returning from the armed services.

With many states now approaching the end of access road building, with the need for road construction now catalogued in many parts of the country, and with legislation now pending in Congress for huge highway programs in the immediate postwar era, he advised the contractors to counsel their respective state highway departments regarding the best means for allocating these funds when they become available. Maintenance of Indiana's state highways, said Hayden, is governed now by shortages of the four M's: men, machinery, materials and money.

By the end of the war many state way departments will have prepared for from 1½ to 2 years of constru This was the opinion of Richard Ho of Albany, N. Y., who predicted large part of postwar construction devoted to much-needed bridges pressed highways and elevated vards in and around our larger Highway maintenance by contract the increase, asserted Hopkins, and expected to continue to increase afte war.

In viewing the possibility of hig construction aggregating a billion d a year for three years after the war. I. Rowe, chairman, Market Develop Committee, raised the question whether there would be enough con ors and sufficient materials availab do the work.

Trends in legislation

In a report on federal legislation affects the construction industry, F Parrott, chairman, Industry Adv Committee—Contractors Group, Construction Machinery, WPB, poi out that, in view of the tremendous tional debt, public opinion is leanin ward a belief that this country will to depend on private enterprise afte war to provide a high level of em ment. Also, there is a noticeable tren Congress toward greater appreciatio the value of industry and private e prise in the postwar construction Mr. Parrott urged members of the ciation to contact their representative Congress regarding legislation that affect the construction industry in postwar period.

Manpower problems

Manpower problems of the construc industry were reported in an open dis sion at the two-day meeting. A. L. A ton, Seattle, Wash., reported the succ ful operation of the "West Coast P in his section of the country. By plan, which has the approval of the Manpower Commission, construc workers are classified as "casual work with a continuous availability rating long as they remain in their design employment area. Under this sys workmen can be borrowed from one when necessary, for special work on other job in the same area.

The principal objectives of this Coast Plan, as outlined by A. F. Ha deputy regional director, WMC, Sea are: (1) to provide for proper and plete utilization of labor resources, to provide for orderly withdrawal of ployees by selective service, (3) to s ice and train the labor necessary for proper manning of essential activities the order of their relative importance the war effort and (4) to eliminate pi ing, undue migration and excessive over of labor, and excessive absentee m Detroit, Mich. came the report priority system has been in effect signing workmen coming into essen- ork from non-essential occupations. ent instance was cited wherein some en secured through the U. S. Em- ent Service reported for work bear- day slips of availability. After the period they had to be returned to .S.E.S. for other work of higher y.

ostwar construction financing

a result of war-induced scarcities cal shortages of labor and materials w construction and repairs, there btedly is being built up a tremend- emand for postwar public construc- many types. This was the opinion H. Buesching, president, Lincoln al Bank and Trust Co., Fort , Ind. He told the assembled con- ors the existence of debt limitations not be considered a particularly deterrent to postwar bond issuance. s due to the substantial amount of retirement during the past three and also to the relatively large borrowing margins now existing in many communities.

Buesching also expressed the opinion that a recession of any consequence appears unlikely for sometime after the war. This is due to the present high level of federal budgets, causing government support towards maintaining the national income at a relatively high level in the postwar era.

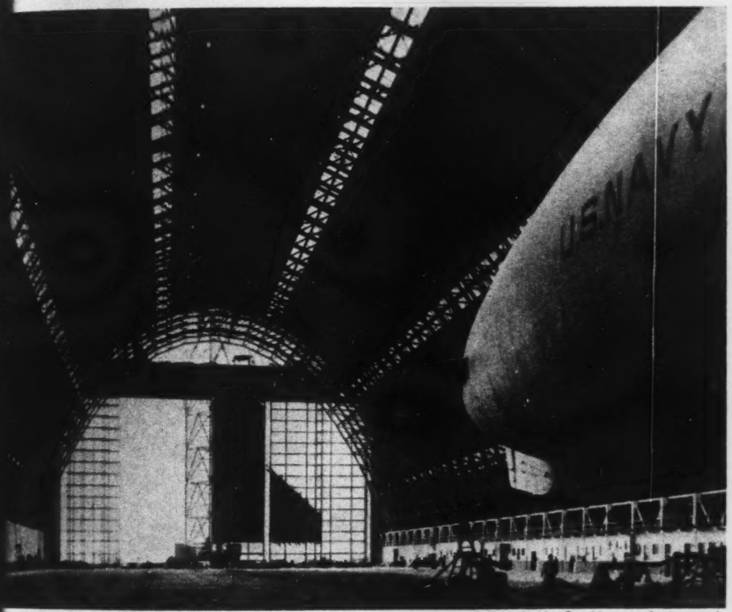
Blueprints now

Near the close of the 2-day session which had an attendance of 140 executives and chapter secretaries, H. E. Foreman, managing director, A.G.C. outlined plans for an educational advertising program soon to be conducted by the association. Bearing the slogan, "This is Blue Print Time," the program will advocate the general contract system for public construction, and it is designed to develop more cordial relations between the contractor and architect and engineer.

Association business

Wm. Muirhead, Durham, N. C. was nominated for president and H. A. Dick, Portland, Ore. for vice president, for 1944. Election of officers will be held at the next meeting. E. W. Geiger, Leavenworth, Kans. was elected to the Building Contractors Division of the governing board to serve for the unexpired term of the late C. C. Rutherford. The spring meeting will be held in Chicago sometime in February. It will be the association's 25th annual meeting.

• • •



Official U. S. Navy photograph

Navy blimp dock in service before completion

blimp docks under construction for the many points along the seacoast during t several months are now in service or completion. The one here shown was o service before construction was com- It was finished and dedicated late ober.

riptions of these docks have been pub- in ENR, Oct. 22, 1942, p. 576; April 3, p. 542; Aug. 26, p. 320, and Sept. 460. They are unprecedented in size er structures, each having a clear span ft. and an inside height of 133 ft. To reduce dimension changes due to the use of a green lumber, the lumber was preshaped while green, then fireproofed by pressure treatment, which kept the moisture content above fiber saturation, and assembled in this condition.

The timber for this dock, which is "Station R" of the two described in the Sept. 23 issue, was preshaped on the West Coast by Timber Structures, Inc., and fireproofed in transit by the Protexol Corp. The dock was erected by Smith, Jacobs & Langston Co. All the work was done under the direction of the Bureau of Yards and Docks of the Navy.

Our shipyards delivered 163 vessels in October

American shipyards delivered 163 cargo vessels aggregating 1,675,000 deadweight tons in October, bringing the total 1943 deliveries to 1,524 ships, totaling 15,500,000 deadweight tons, the Maritime Commission announced Nov. 3. That left 3,388,000 deadweight tons to be produced in November and December to attain the announced goal of 18,890,000 for the year.

Of the total deliveries, seventy-six ships, or 47 percent, were delivered by West Coast yards; East Coast yards turned out fifty-one vessels, or 33.5 percent of the total; twenty-nine vessels, or 17.6 percent, were delivered by yards on the Gulf Coast, and seven ships, amounting to 1.8 percent of the total, were produced and delivered by Great Lakes builders.

On Nov. 3, the destroyer-escort Reynolds was delivered to the U. S. Navy by the Bethlehem-Hingham Shipyard just 25 days after keel laying. It took 302 days to build the first group of ships in this class.

• • •

Contractors not affected by declining oil supply

Construction contractors will not be affected by the declining reserves of gasoline and oil, according to officials of the Office of Price Administration, despite the fact that gasoline supplies are approximately half a million barrels below the daily civilian requirements of pre-war days, and the Petroleum Administrator for War estimates that production will drop another 70,000 barrels daily by the first quarter of 1944. This is said to be true even though the scarcity might be intensified by unforeseen factors such as sudden and large-scale demands from the military forces.

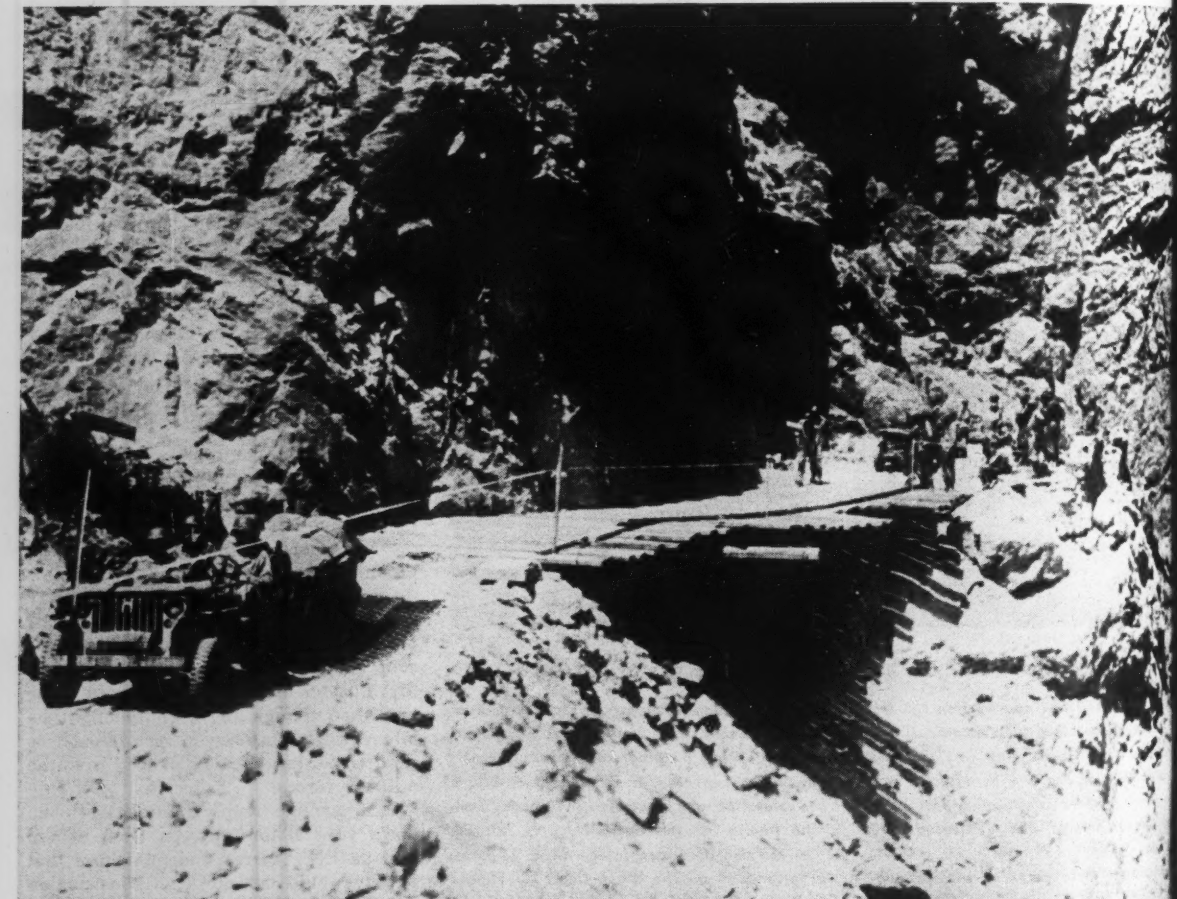
The gasoline supply would have to go down very abnormally, an OPA official told an ENR correspondent, before that agency would cut down on construction contractors' supplies. The reason, he explained, is that since the War Production Board acts on most construction projects, OPA views them as essential to the war effort.

Engineers bridge a mine-blasted crater on Sicily's coast road

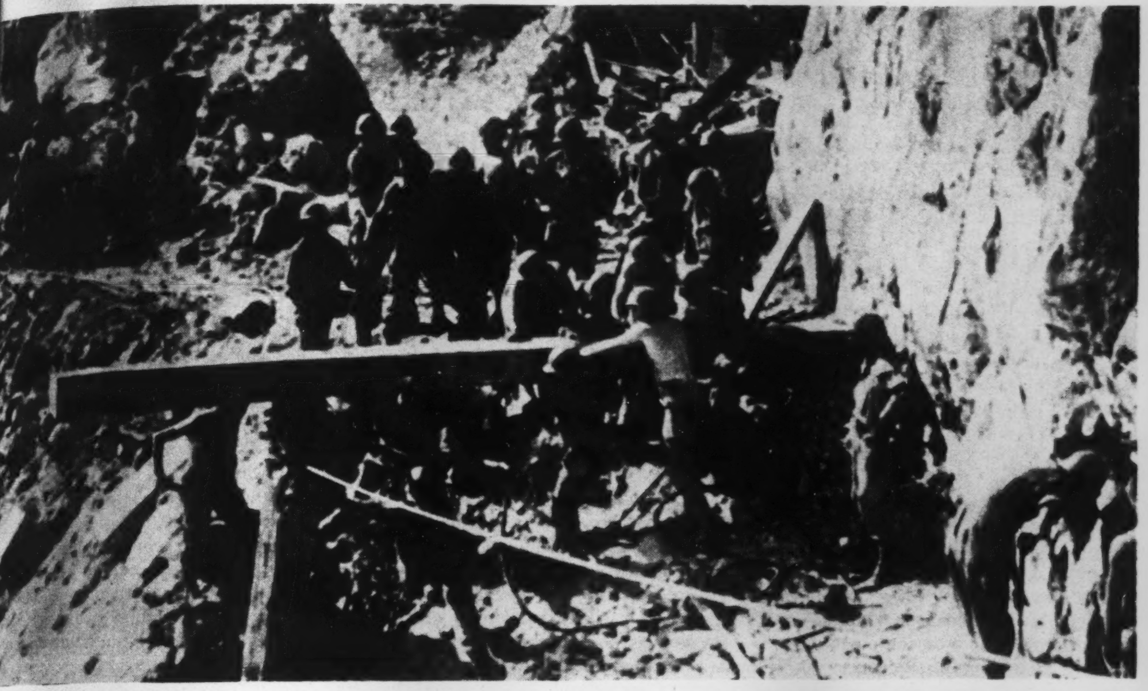
When a communique says "The enemy resorted to delaying action", it usually means that jobs have been created for the Army Engineers; and the more difficult the job can be made, the longer the delay. By blasting a 150-ft. crater in the cliffside road along Sicily's northern coast at Point Calava, the retreating Germans and Italians had good reason to believe they had blocked the pursuing American 7th Army for several days. But in just 20 hours, from 4 p.m. one day to the following noon, the 10th Engineers of the American Third Division had bridged the crater, and supplies and guns were rolling forward again.

This was one of the achievements which prompted General Sir Harold Alexander, the British commander, to comment, "I never saw such remarkable military engineering accomplishments. It was magnificent. The Germans blew up fifteen bridges in twenty miles along one sector of the coast, but they delayed the Americans only a matter of hours. It was a wonderful feat. The Americans went from Palermo to Messina in a fortnight. You would not hike it in a fortnight in peacetime." It was also one of the achievements that Lt. Gen. Patton had in mind in his salute to his Seventh Army, when he said, "The Engineers performed prodigies in construction maintenance of impossible roads impassable country." American n paper readers of Ernie Pyle's col will recall that he devoted three patches to the Point Calava undertak

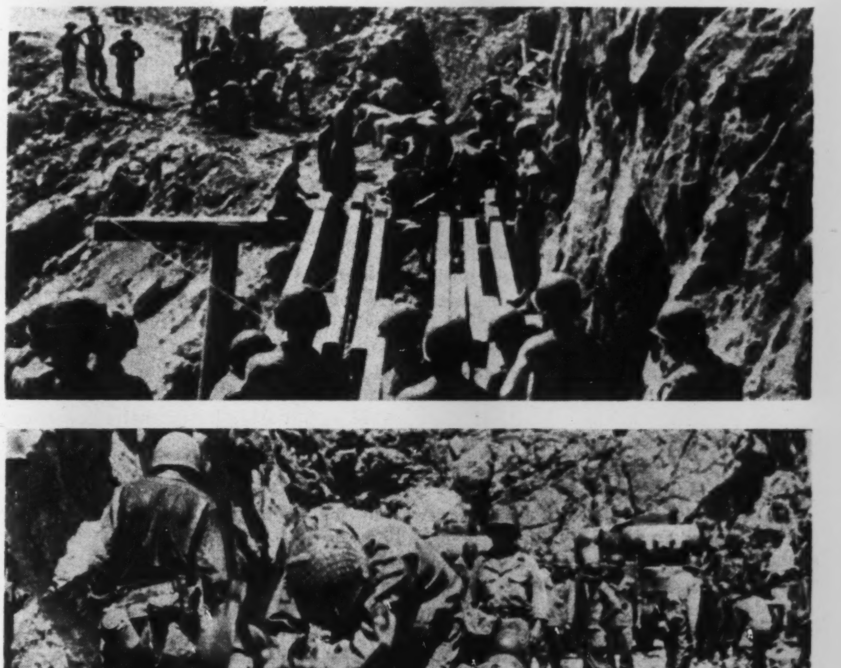
The crater that was bridged in hours was located on a mountain shelf road 200 ft. above the sea, about 50 ft. from the portal of a tu which carried the road through P Calava. Available equipment and m rials consisted of heavy timbers, pl cable, hand tools and two truck-mou compressors, and the accompanying tures and captions tell the story.



Jeep and trailer are first across the completed bridge, a two-span timber structure resting on a bent anchored to the si of the cliff by a cable, which is protected by open-mesh steel grating where it crosses the roadway.



ting the cap beam of the bent on its supporting post, whose butt rests in a hole excavated by jackhammers and hard nual labor. A temporary cable keeps the post from falling outward and down the 200-ft. slope into the sea.



ringers made of spliced 6x12's are
ced across the bent which has been
mpleted by a kneebrace and by join-
the cap beam to the post by heavy
ked scabs. The temporary cable
und the post has been replaced by
permanent cable attached to the
of the beam.

avy planking is laid for the deck,
ends of the stringers that overlap
bent being adzed down to provide
evel bearing. In the background are
truck-mounted compressors.

Activity on the Postwar Front

Some of the latest plans and developments regarding postwar activities in different sections of the country are as follows:

Maryland—State construction projects estimated to cost $10,797,954 have been submitted to the Maryland Commission on Postwar Reconstruction and Development. A block plan for the improvement of the downtown section of Baltimore has been approved by the local committee for postwar planning. Projects for the improvement of municipal airport facilities at a cost of $3,000,000 are among the items of a $94,000,000 postwar public works program, prepared by the engineers' advisory committee of the Baltimore Committee for Postwar Planning, and made public by Mayor Theodore R. McKeldin on Oct. 27.

Pennsylvania—The Constructor's Association of Western Pennsylvania is broadcasting over KDKA a series of programs to induce business men and industrialists to plan concretely now for postwar jobs.

James J. Shelly, chairman of the Pennsylvania Postwar Highway Committee, aided by about 50 members, will investigate state, city and rural highway needs for postwar construction.

Mississippi—The State Highway Commission has outlined a $75,000,000 road building program. There is available $920,000 of federal funds to be matched with state monies for the preparation of plans.

Corpus Christi, Tex.—This city has entered into a contract with Myers & Noyes, consulting engineers, to make preliminary studies, prepare plans and ultimately to supervise construction of about $15,000,000 worth of work on the municipal water system following the war. Plans for a large storm sewer along the waterfront and a pumping station already are well along. Most of the right-of-way has been acquired.

Illinois—E. Roy Wells, of the Wells Engineering Co., Geneva, Ill., has been appointed chief engineer of the Illinois Post-War Planning Commission, created recently by the State legislature to coordinate plans for postwar public and private construction work. The commission has taken first steps toward charting a $400,000,000 reconstruction program. Studies are being made of water supply and sewerage facilities, and committees have been authorized for public works, veteran rehabilitation, natural and human resources, civil production, marketing, industrial development and private housing. Charles M. Thompson, dean of the College of Commerce and Business Administration of the University of Illinois, is permanent chairman of the commission.

Detroit, Mich.—The Committee on Highway Planning says projects for 46.5 miles of express highways are the most important for immediate construction when peace comes. The entire Detroit plan of superhighways includes 161 miles of expressways.

Georgia—State Housing Director George B. Hamilton has obtained a federal appropriation of $15,000 to help finance a survey of housing needs for the postwar period. He says: "After the war we hope to spend $75,000,000 on rural housing alone."

St. Louis, Mo.—The Metropolitan Plan Association has adopted a constitution and by-laws and it is announced by Secretary Charles H. Ellaby that the association will be concerned with private as well as public works. Its objects are stated as follows: "Within the counties of St. Charles and St. Louis, and the City of St. Louis in Missouri, and the counties of Madison and St. Clair in Illinois, to encourage the planning and execution of meritorious public works; to reconcile the planning of public and private works for the good of this community; and to collect data, cause investigation to be made, and public findings concerning the physical and economic characteristics of this area, and to interpret the effects of proposed physical changes or economic trends upon the growth and well being of this community."

Indiana—A suggestion that state, city and county road departments make plans now for postwar construction projects has been made by State Auditor Richard T. James, who said motor vehicle revenues not needed now for maintenance could be put aside for extensive construction work later.

Jacksonville, Fla.—A resolution to provide for adequate streets and arterial highways to serve all sections of the city over a long period and to eliminate dead-end streets has been adopted by the city's Advisory Planning Board.

Atlanta, Ga.—Eight viaducts and underpasses and four other street improvements have been approved by the city planning commission as "must" postwar projects. Cost of the undertakings is estimated at $2,816,800.

Virginia—Applications submitted by the Public Roads Administration for federal funds amounting to $198,000,000 to aid in financing advance plans for postwar highway improvements in Virginia and the District of Columbia have been- warded to Washington by the FWA gional program review board wit recommendation that they be appro

The funds requested represent 50 cent of the estimated cost of mak surveys and preparing specifications ten highway projects in Virginia one in the District of Columbia. remainder of the cost will be supp by the Virginia State Highway Dep ment and the District Board of Comm sioners, on a matching basis.

Ohio—The State Highway Departm has complete plans ready for some $ 000,000 worth of postwar projects, cluding new road construction, gr crossing eliminations and bridge repla ments, Glen R. Logue, assistant O highway director, has announced.

Other sources estimated that plans at least $5,000,000 worth of additio Ohio postwar construction projects complete. These include about a third the welfare department's $7,000,000 stitutional building program and n construction at state universities colleges.

Miami, Fla.—Greater Miami's politi subdivisions are formulating plans spend $67,916,786 on 106 projects in postwar era. A survey and tabulation proposed postwar spending was co pleted recently by Earle M. Rader, gineer, for the Planning and Indus Committee of the Miami Chamber Commerce.

Alabama—Highway Director Robin Sw on Oct. 27 announced far-reaching po war plans for improving Alabama's roa ways at an anticipated expenditure $182,000,000, three-fourths of which expected to be allocated to the state the federal government. The propos expenditure, which is equal to appro mately the amount heretofore spent construction of the state's entire highw system, it is said, will be used mostly f rebuilding and relocating wornout a obsolete highways.

Texas—Gibb Gilchrist, former Tex state highway engineer and now dean engineering at Texas Agricultural a Mechanical College at College Statio Tex., has been made head of a 31-memb postwar economic planning commissi for Texas by Governor Coke Stevenso

New York City—As part of its postw construction program, the city plans build sixty new public schools, at a co of $96,318,000, Mayor La Guardia di closed Nov. 6. Reporting that "very sati factory progress" has been made, th Mayor announced that seventeen of th projects, totaling $21,216,000, are tho for which sites already have been a proved and plans and specificatio completed.

Letter from LATIN AMERICA

By Edward J. Cleary

Managing Editor, Engineering News-Record

aquil, Ecuador. Ecuadoran engi-
ng and construction management
ods represent a far departure from
ystem under which we operate in
tates. That, at least, is a conclusion
ed by Erik Sorensen, who is in
e of several hospitals and health
r construction projects for the Co-
ator of Inter-American Affairs at
place.

. Sorensen is a young engineer who
to the United States from Denmark
l years ago on a scholarship, to
soil mechanics at Harvard Univer-
This led to a connection with
les T. Main, Inc. of Boston, during
h he got a thorough grounding in
ical construction procedures on sev-
big jobs; incidentally, he also be-
a U. S. citizen in this period.

uilding practice in Ecuador," said
Sorensen, "places far too much re-
ibility on the contractor. For ex-
e, the architect's plans for even an
rate project on which bids are
t consist of hardly more than a gen-
elevation and plan views; these are
to a contractor who then deter-
s how the structure should be built.
means that the contractor's engi-
must make a structural design and
rn himself with all the details (such
cation of wiring, outlets, plumbing,
normally provided on a set of
. As for specifications, the most that
e said is that they are brief and in-
l. Consequently, the end results are
to seldom please either the owner,
tect, or contractor."

From the ground up

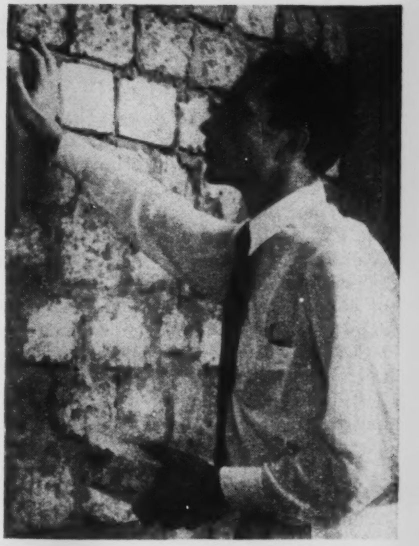
arged with the responsibility for con-
ting a number of buildings for the
aquil health authorities, to whom
ealth and sanitation division of the
dinator's Office allotted $225,000
is worth 3,370,500 Ecuadoran dol-
, Mr. Sorensen has introduced North
ican methods of procedure. First,
t up a typical engineering and con-
ing organization, with a staff of de-
g engineers, draftsmen, inspectors,
rialsmen, and timekeepers. Then he
oped complete sets of working plans
each project, along with detailed
fications. And finally, he went out
rchase construction equipment and
workers.

en I arrived here, the work had
going on for about a year. Stacked
y on racks in the office were sets of
for each project (there are 6 projects at present), on the walls there were weekly progress charts, and a corps of engineers and draftsmen busied themselves under the direction of a chief designer. Out in the field a resident engineer was in charge of each project.

Most of all, I noted the pride that each engineer felt in the work he was doing. All of them were Ecuadorans, and they told me that this opportunity to learn at home the construction procedures used in the United States was a special privilege. In turn, Mr. Sorensen revealed that never before had he enjoyed so much cooperation and interest as evidenced by his staff of local engineers. What they lacked in practical experience, said he, they more than offset in their knowledge of basic engineering theory.

How the health authorities in Guayaquil feel about the work that is being done here is indicated by their recent offer to contribute the entire cost for several additional projects, if the Coordinator's Office will supervise the construction. Heretofore, their contribution in the cooperative program was limited solely to the furnishing of the sites.

Incidentally, the hospital buildings are of reinforced concrete frame and brick construction, and the design provides resistance to earthquake shock.



Erik Sorensen experiments with pumice block, a local product in Ecuador, for building walls.

In fact, Mr. Sorensen directed the design and construction of the first building in Guayaquil with earthquake resistance, and this withstood several shocks last spring when adjoining structures were badly cracked.

Other innovations to his credit include the use of split bamboo, driven and used like sheetpiling, for retaining walls, and the use of lightweight pumice stone blocks (obtained from nearby volcanic deposits) for interior building walls. The pumice block is very light, sound-deadening and fireproof.

To insure accurate proportioning of concrete on a hospital building in Ecuador, all the aggregates are delivered to the mixer in batch boxes.

Water supply activities in twenty-four American cities

The Federal Works Agency has completed or under way in vital war areas some 300 water supply projects estimated to cost more than $81,000,000, according to a report made by Baird Snyder, assistant FWA administrator and director of War Public Works.

This statement highlights a roundup of current activity in the field of water supply, which shows that much progress is being madeto provide adequate facilities to meet war needs.

Progress reports from various projects and recent developments are summarized as follows:

Hampton Roads, Va.—One of the largest municipal water supply programs ever undertaken by the federal government, involving the expenditure of more than $12,000,000, is approaching completion in the Hampton Roads area of southeastern Virginia.

To provide a dependable year-around water supply of sufficient volume to meet all civilian and military requirements, the Federal Works Agency allocated funds for the construction of two huge reinforced concrete pipelines to bring water to the Hampton Roads area from the Chickahominy and the Nottoway Rivers. Both pipelines have been completed. It is estimated that the new lines will increase the supply for Newport News, Norfolk and Portsmouth by approximately 37,000,000 gallons a day, while the volume of filtered water made available through the construction of clearwater reservoirs and filtration plant additions will be increased by at least 24,000,000 gal. a day.

Houston, Tex.—For this city's war industries FWA is providing an 85,000,000-gal. daily flow supplied through two gravity-flow canals, one 19 miles and the other 16 miles long. The canals run from an intake in the San Jacinto River to the industrial area. The west canal runs along the ship channel to a point below Houston while the east canal will extend as far as Humble near Galveston Bay.

A committee of 16, representing Galveston, Harris, Montgomery, Walker, Grimes and Liberty counties and the city of Houston, on Aug. 16 officially recommended that the San Jacinto River be considered the logical source of additional water for the entire area and that the distribution should be handled by a district agency with representation from all portions of the watershed. The group was authorized to investigate the best source of fresh water for the entire area, including Harris and Galveston counties, and the report was made following conferences with government engineers, the state board of water engineers, and the Harris County Navigation District.

Wilmington, N. C.—The City Council on Sept. 27 voted to incorporate the construction of an 8,000,000-gal. reservoir into the municipal waterworks expansion program which has been under way for the past two years. The reservoir will be constructed instead of two steel storage tanks, plans for which has been abandoned because of the steel shortage.

The extension and improvement of waterworks and water supply systems to meet increased wartime and postwar requirements is a big problem for American municipalities today. Highlights of the financial and engineering features of this problem in the case of twenty-four typical communities in different parts of the United States are brought out in this survey.

City officials said that funds for the construction of the reservoir are available, 60 percent of the cost being met by the Federal Works Agency. It is estimated that the project will cost $310,000. The State Board of Health has approved the project.

St. Louis, Mo.—Special efforts are being made to induce St. Louisians to reduce water waste in their city. City officials declare that 30,000,000 gallons of water are being wasted there daily. It was explained that it required 15.3 tons of critical chemicals and 33.4 tons of coal daily to pump and purify the water that is wasted every day, or more than 5,000 tons of chemicals and 12,000 tons of coal annually. The movement of these water chemicals requires 139 box cars and the coal 203 coal cars.

Oklahoma City, Okla.—This is another city that has to be careful of its water, as low water in the North Canadian river has endangered the water supply. Water is being pumped from fifteen wells.

Arlington County, Va.—FWA has completed a 6,000,000-gal. filtered water reservoir just across the Potomac River from Washington. The reservoir is of mass concrete with a wood-truss roof supported by brick piers. Eight miles of 12-in., 20-in. and 24-in. pipe distribute the supply which is pumped in from the District of Columbia Dalecarlia plant.

Nashville, Tenn.—The City of Nashville took preliminary steps recently toward opening negotiations for acquisitio three suburban waterworks systems of which already are served from nicipal mains. A committee compose Dr. J. W. Bauman, commissioner of ter, health and welfare; R. L. Lawre Jr., director of the City Waterworks partment; and City Council Presi Alex M. Hines is under instruction contact officials of the three utility or izations and report their recomme tions to the Board of Administration.

Denver, Colo.—A few weeks ago, a g of city officials inspected prelimi work on the Blue River diversion pro which would make available a water ply sufficient for the needs of De for years to come.

The 30-million-dollar project is on the most extensive ever planned by city. It would not only make avail additional water for the Denver but would supply electric power and a valuable aid in flood control, accor to officials.

The plan is to build a 22-mile tu which would lead from a point near lon to the North Fork of the South Pl River. The water would be impoun in Two Forks Reservoir. Building dam below the forks would practic eliminate the danger of floods in Denver area, as water from the S Platte could be controlled, accordin the city officials.

New Bern, N. C.—Work has been sta on additions to the municipal waterw system which the Federal Works Ag is helping to construct as a war pu works project. Plans prepared by P son & Whitman, consulting engineer Raleigh, call for the installation of proximately 23,240 ft. of 4-in. to 1 water mains and distribution lines, cluding 13,300 ft. of 14-in. high pres main to connect the city's new well with an existing 12-in. main in downtown section of New Bern, and construction of a 300,000-gal. reinfo concrete reservoir, eight small pu houses in the well field and a high-p sure pumping station which will be cated near the proposed reservoir.

Washington, D. C.—To keep pace Washington's growing population and start improvements that soon will bec necessary, an outlay of nearly $4,000, for the water supply and distribution tems is requested in the 1945 water sion estimates.

The proposed expenditures next (of $3,938,584) would represent an crease of about 75 percent over this most of the boost being for facilities nd the water supply. For the water y system alone, the proposed in- is well over 100 percent.

Wales, Fla.—A survey of this city's problem is being made by D. A. P. , chemistry professor, University of la, and C. K. S. Dodds, consulting eer, Sarasota.

C. Baker, city manager, says that ing facilities are adequate, but is a hazard in case of breakdowns. ity has about 2,300 water patrons, umber rising to about 3,000 during inter months. The water pressure Mr. Baker said, has a 300,000-gal. ity. Peak usage daily during the r months often reaches the rate of ,000 gal. during the 24 hours, with lant frequently called on to pump uch as 4,000,000 gal.

nix, Ariz.—The shortage of water occurs in this city is not due to a of water at the source of supply. Verde River, from which most of the is obtained, has a minimum flow imes larger than ever was consumed hoenix in a single day.

e city water system obtains its chief y from water that seeps through l into the first mains near Fort owell. But the silt, in summer, coats the river bed, serving with almost same efficiency as a fine coat of nt to stop the downward seepage.

hen the silt covers the bed, a notice- reduction in the millions of gallons g to the city daily is felt almost diately. The only method to combat to scrape the river bed with a huge lozer blade. But silt continues to down the river and the process must epeated continually. Local authori- ay that it promises to continue until are taken to counteract the dimin- seepage or correct the conditions anently. Some would have a dam ructed on the Verde, below Bartlett to catch the river's flow. If that is it will necessitate construction of filters to replace the natural gravel utilized in the present system.

le, Ala.—Wartime growth of the f Mobile, Ala., from about 115,000 me 250,000 population has necessi- a great increase in its waterworks. city's daily pumpage has increased 6 to 12 million, still is growing and pected to reach 18 m.g.d. to 20 by the end of the year.

order to take care of the great pop- n increase the city has a new 20- n gallon-per-day filtration plant ng completion and has laid approxi- y one half million feet of cast iron water lines, much of it of small di- ions to serve numerous housing cts.

addition engineering specifications have been authorized by the Federal Works Agency on a new source of water supply from Big Creek which will involve the building of a 20,000,000-gallon reservoir near the site of the filtration plant and the laying of an extra 24-inch main for delivery of water into the business district.

Contract for the main has been awarded to Milam Construction Co., of Birmingham. The new reservoir will double the storage capacity of the water works system which is now supplied with two 10,000,000-gallon reservoirs.

Seattle, Wash.—A plan whereby the Seattle Water Department might supply water to residents on the east side of Lake Washington was outlined to representatives of East Side community clubs at a mass meeting Oct. 6.

Don Johnson, executive officer of the King County Planning Commission, presided at the hearing, which was attended by federal, state and county officials. Four possible sources of water were considered. They include the Tolt and Cedar Rivers, Lake Washington and ground water, or wells.

Savannah, Ga.—An application was filed by the City of Savannah on Sept. 27 with the regional office of the Federal Works Agency in Atlanta for a survey of the water supply in and around Savannah and for the construction of a filtering plant there with a capacity sufficient to take care of all possible requirements.

The application estimates that (due to war activities), the population of Savanah is now 165,000 compared with 117,970 in January, 1940, and a population of at least 175,000 is expected by the end of the present year.

Corpus Christi, Tex.—A project here provides for a 15½-mile supply line and additional storage for 10,000,000 gal. When the improvements are completed there will be delivered 13,000,000 gal. of water a day into the city's distribution system.

San Diego, Calif.—FWA has provided for reinforcement of existing supply lines and preliminary surveys and plans looking toward additional sources of supply for this overcrowded area.

Newport, R. I.—A water system built to serve a peacetime population fell far short of war demands. More than $4,000,000 was provided for the construction of dams, an impounding reservoir in Lawton Valley, a filtration plant, pumping station, and mains.

Portland, Me.—This city received FWA funds for the construction of more than 7 miles of water main, approximately 4 miles of which are submarine main in the harbor.

Detroit, Mich.—Detroit's principal water problem has been distribution. The largest industrial plants have located in the outlying sections. It was necessary that pressure in all districts be maintained at a high level to operate automatic tools. Plans call for an additional reservoir and pumping capacity.

The situation also will be eased as a result of a modified municipal "lend-lease" arrangement worked out by FWA and the War Production Board whereby Philadelphia loaned four 40,000,000 gal. per day pumps to Detroit.

Cincinnati, Ohio—The Mill Creek project which serves a large aircraft plant is nearing completion. The need here was for clean, cold supply for industrial purposes. The supply from a well field south of Hamilton is conveyed in concrete pipes to a reservoir and distributed.

Salt Lake City, Utah—Industry and population, expanding simultaneously, caused an increase of 105.53 percent in water usage for the Salt Lake City area during July of this year compared with July, 1934, according to a report released Aug. 19 by the metropolitan water board.

Compiled at the request of officials urging speedy completion of the Salt Lake aqueduct of the Deer Creek project, the report tells the story of increased water consumption in this area.

It was announced from Washington Oct. 1 that work is to be resumed on the Salt Lake Aqueduct, and it is expected that the Bureau of Reclamation will call for bids and award contracts by Jan. 1 next.

Tampa, Fla.—The city has completed a new 1,500,000-gal. elevated tank. When it is connected in the water system, pressure is expected to be better throughout the whole Palma Ceia area, especially at times of the day when it has fallen seriously as a result of heavy demands.

The tank, which cost $150,000 is a part of the city's $2,000,000 water expansion program. New mains were laid last year at a cost of $1,500,000.

Louisville, Ky.—The Louisville Water Company is planning the first major improvements in more than forty years to heighten the quality of Louisville's water supply—new coagulation basins, softening processes and the like—to cost approximately $669,000, it was announced Oct. 12 by Henry M. Gerber, president, after receiving reports on a survey from the company's engineering advisers.

MEN AND JOBS

William H. Sturgeon, executive officer in charge of plans and training at the headquarters of the First District Army Air Forces Technical Training Command at Sedgefield, N. C., has been promoted to the rank of lieutenant colonel. He is a graduate of Carnegie Institute of Technology and for 14 years served as superintendent of construction with the Dravo Corp. of Pittsburgh, Pa., and was for three years on flood control design studies.

J. A. Heaman has recently retired from the position of office engineer of the Canadian National Railways at Montreal, after 42 years of service. He is an honor graduate in civil engineering of McGill University.

Frank Gillelen has been appointed to the Board of Public Works of Los Angeles, Calif., to fill a vacancy caused by the retirement of **Maj. Carl B. Wirsching** who joined the armed forces. **James Wilson,** appointed to the board to fill the vacancy caused by the resignation of **Edwin B. Cassidy,** now on the city planning commission, has been elected vice-president.

Lt. Marvin F. Poole, C. E., Kansas City, Mo., has been assigned as executive officer of the 131st Seabees battalion.

Col. B. F. Vandervoort, chief of the price adjustment branch of the Ohio River division of the Army Engineers, retired from active duty Oct. 2 after 25 years of service. He will be succeeded by **Maj. Caspar W. Haupt,** formerly chief of the price adjustment branch of the engineers in the Great Lakes division at Chicago.

Yvon Marchand, has been appointed chief engineer of the town of Sorel, Que. Previously he was district engineer for the Provincial Department of Roads at Boucherville, Que.

Gaston A. Mailhot, a civil engineering graduate of the Ecole Polytechnique in Montreal, has been employed as superintending engineer by Armand Sicotte & Sons, engineers and contractors of Montreal and is now construction-engineer for the National Paving & Construction Co. Ltd., also of Montreal.

Henry A. Yancey, city manager of Durham, N. C., since October, 1935, has resigned to accept the city managership of Greensboro, N. C. Yancey has had 17 years experience as city manager. He was director of public works of Charlottesville, Va., in 1922. In 1925 he became city manager of Charlottesville; in 1932 he was appointed city manager of Petersburg, Va., and in 1935 went to Durham, N. C.

Maj. Kenneth K. Ellis, chief of repairs and utilities, Little Rock office of the U. S. Engineers, has become area engineer at Camp Livingston, La. He relieves **Maj. Carl Y. Farrell.** No successor will be named for Major Ellis, as this department has been discontinued locally.

After three years in Portland, Ore., **Col. Donald J. Leehey,** U. S. district engineer, has been ordered to Camp Claiborne, La., the engineer training center. **Lt. Col. Ralph A. Tudor** has been designated as his successor as district engineer at Portland.

Col. Lewis A. Pick, division engineer, Missouri River division, U. S. Engineers, for the last 18 months, has been given a new assignment and will be succeeded by **Col. Miles Reber** of Washington. One of the largest federal construction programs in the Middle West was executed last year under the direction of Colonel Pick.

R. W. Murphy, former engineer with the United States Indian Service at Billings, Mont., has accepted a position as city engineer at Rye, N. Y.

Alexander C. Eschweiler, Jr, prominent Milwaukee architect and civic leader, has been appointed to the county land commission of Milwaukee to fill the vacancy caused by the resignation of **C. P. Whitnall.** Mr. Eschweiler is president of the Milwaukee metropolitan planning association.

Arch Saunders, Marshfield, Ore., has been appointed chairman of the Oregon highway commission's travel and information advisory board. He succeeds Merle Chessman, of Astoria, who is now a highway commissioner.

Engineers **E. C. Mills and George Sturgeon** have retired from service with the East Bay Municipal Utility District, Oakland, Calif. Mills, a senior engineer with headquarters in Oakland, left voluntarily ahead of the legal retirement age and has gone into service with the War Production Board in San Francisco. Sturgeon, a maintenance engineer in charge of the entire Mokelumne Division from Pardee Reservoir down to and including the Lafayette tunnel, has reached the retirement age. Both men entered the service on the same day, July 1, 1924, and they have been identified with t
entire construction of the mountain wa
system.

George P. O'Rourke. Sr., of the Geor
P. O'Rourke Construction Co., Housto
Tex., has been called to active duty
the United States Naval Reserve, Ci
Engineering Corps, at Camp Peary, W
liamsburg, Va. He is serving as a fi
lieutenant. **G. Paul O'Rourke, Jr.** a
Tom C. Crist, two other officials of t
company, are now serving overseas
lieutenants in the U. S. Naval Civil En
neer Corps.

A. L. Seaton, formerly project en
neer at Billings, Mont., for the Monta
State Highway Department, is now a civ
ian engineer with the Army Engineers
Wright Field, Dayton, Ohio.

B. A. Nangle, city engineer at Yan
ton, S. D., since 1942, has resigned. H
will locate at Pierre, S. D., where he w
become engineer for the South Dako
State Board of Health.

W. W. Thorn, Grinnell, Ia., for t
past ten years maintenance engineer f
the Iowa State Highway Commission, h
resigned to accept a position on the en
neering staff of the Consolidated Vult
Aircraft Corp. at San Diego, Calif.

Herbert Hill, Bloomfield, Ia., has be
appointed Davis County engineer to su
ceed **S. B. Stuck,** who resigned recentl

Maj. H. L. Marian, of Portland. Or
has been assigned to duty at Bushne
hospital in Brigham City, Utah. For t
past two years he has served as ar
engineer at Seattle, Wash, for the U.
Engineers.

Edgar Nelson has been appointed e
gineer-manager of the Dickinson Coun
(Mich.) Road Commission, succeedi
M. C. Connolly, who resigned because
ill health. **William Johnson** was name
assistant engineer.

Major R. P. Staeffler, formerly co
manding officer at Little Rock, Ar
Ordnance plant and lately of Badg
Ordnance Works, Baraboo, Wis., h
been transferred to the Army Enginee
ing Corps at Camp Swift, Tex.

George S. Haines, municipal enginee
at North Vancouver, B. C., from 1912
1914 and 1924 to 1936, has left for Prin
Rupert, B. C., to assume duties as m
nicipal engineer there.

A. E. Niederhoff, who was former
employed by the U. S. Army Enginee
at Portland, Ore., is now a design en
neer at the Oregon Shipbuilding Co
in Portland.

mended conservation order L-41 akes contractors' compliance easier

acilities branch of WPB attributes previous non-compliance on onstruction limitation to ambiguities in the language of the order ow removed by the amendments

he War Production Board, in issuing ervation order L-41 in amended form, ctive Nov. 1, (as reported in *ENR* 4, p. 73) announced that its main pose is to clarify provisions of the r in an effort to secure compliance its terms. Compliance, says Roy nson, who heads the facilities branch WPB, has been unsatisfactory, and attributes this fact mainly to the am- uity of the order in its old form. While tractors as a whole, he says, have erstood the order and abided by it, e has been unintentional non-compli- e on the part of persons who under- e construction with the help of work- , without the services of a general tractor.

here are, however, some changes in order. Foremost among these is one ch concerns engineers' and architects' . Formerly these fees, together with e of contractors, were included in ving at the cost which determines ther or not a project can be started hout authorization to begin work. m now on, engineers' and architects' will not be included, though con- tors' will continue to be.

nother change makes it unnecessary include the value of any used equip- t in arriving at such costs. Still an- er strikes out the clause which said t if both construction and repairs were luded in a project, it was considered all-new construction so far as the essity of securing authorization to t construction was concerned. Hence- th, authorization is required only for new part, and not for any repairs luded in the same project.

New value limitation

here are also a number of changes the money value of projects, below ich authorization is not necessary. se changes, the amended order points , do not affect the necessity of ob- ning priority ratings for materials. ereas formerly farm construction, in- ding a house, did not require author- ion if the amount involved was $1,200 less, the figure is now set at $1,000. e other figures represent an increase her than a decrease in the established ce.

he $200 value remains for a resi- nce, $1,000 for multiple residential struction, and $5,000 for industrial ldings, with certain exceptions.

or other types of construction, author- tion had to be obtained if the cost was $1,000 or more. That figure has been retained for a number of specified types of construction, and reduced to "$200 for any other kind of construction." Types of projects for which the figure remains at $1,000 include public buildings, bridges, dock and bus and street railway facilities, irrigation and drainage projects, warehouses, Army or Navy military exchanges, and utility facilities including sewage systems. For commercial buildings, the figure is now $200 to $1,000, according to the number of units involved.

Special exemptions

Special kinds of construction which do not require permission to start work, regardless of cost, include maintenance and repair, exclusive of additions and structural alterations; rebuilding in cases where the Red Cross has priority assistance; construction necessary to prevent loss to farm products; that owned by the U. S. military agencies; insulation of buildings; earth moving operations where neither cement, lumber, or other building materials other than clay tile and non-reinforced concrete pipe are used; construction connected with operation of farms, railroads, utilities, mines, petroleum industry, logging, chemical and steel plants and broadcasting.

Neither is it required for the rebuilding of houses and farm buildings damaged by disaster, if the cost is less than $5,000, nor for plumbing and heating if the cost is less than $200.

There are certain preference rating orders or certificates which also provide for permission to begin construction, without separate authorization. They relate to public roads, certain construction on projects important to the war effort or essential civilian needs, privately owned programed war housing, utility facilities, and certain construction of the Corps of Engineers.

• • •

Hartford-New Britain express highway planned

Initial plans are being developed for the postwar construction of an express highway from Hartford to New Britain, Conn., at a cost of about $10,000,000. An exhaustive research into the sources and destinations of Hartford County traffic indicates that a four-lane super highway between these two cities will be required.

Four British builders complete inspection tour

The four prominent men in the building field sent to this country by the British government to study our construction methods (*ENR* July 29, p. 179) have completed their tour and are returning to England. Speaking to the New York Building Congress on Nov. 3, Alfred C. Bossom, the architect who headed the commission, stated that the trip had been very much worth while and that members of the commission were going back with valuable ideas as to how to meet the problem that faces their construction industry after the war. The commission consisted of Mr. Bossom, George M. Burt, head of the British Building Research Board, James Grey West of the Ministry of Works, and Frank Wolstencroft, vice president of the Trade Union Congress.

A major problem faced by the British construction industry, said Mr. Bossom, is expansion of the nation's building forces following the war at a rate fast enough to meet the need for new buildings. One in every five buildings in England has been damaged by bombing. Between 4 and 5 million new homes are needed and a 20 percent increase in schools. The shift of building workers to the armed forces or to war industries has cut the number of building laborers from a normal of 1,250,000 effectives to 250,000 effectives.

Low production per man

For lack of labor saving equipment, poorer advance planning and less repetitive work, building labor in England produces only 1½ cu.ft. of new building per hour against 2⅔ cu.ft. per hour here. Nevertheless, building costs are about the same due to our much higher hourly pay rates.

Mr. Bossom noted especially that we speed our operations by the preparation of better plans before the work starts, by doing more of the work on a production basis and by giving more information about the job to the workmen. "You build your buildings on paper before you start building with brick and mortar. We don't."

Commenting on what he had seen here, Mr. Bossom said that he had seen some remarkable prefabrication jobs and a few outstanding housing operations. He added that he had seen other housing that looked as though purposely designed so the wind would blow it down in time. He added that it appeared to be serving its purpose effectively.

Research work in the building field in this country is quite marvelous, Mr. Bossom said, but it is not coordinated. When it is coordinated, Mr. Bossom expressed the hope that research work in Great Britain will be included. Both countries, he said, would benefit thereby.

Recent faculty changes in engineering schools

Appointment of Prof. Clarence L. Eckel, head of the civil engineering department at the University of Colorado, Boulder, and a member of the faculty since 1914, as dean of the university's engineering school was announced Oct. 15 by the board of regents. The appointment became effective Nov. 1. Dean Eckel succeeds Dean Herbert S. Evans, who will retire.

Dean Eckel has been a consulting engineer on several army air base runways in the Rocky Mountains region.

Dean Evans joined the faculty in 1905. Previously he was an electrical engineer with the Burlington railroad and the General Electric Co.

Evans has contributed many engineering and scientific articles to the technical press, has had a considerable consulting practice and has often appeared in court as a technical expert. His outstanding accomplishment has been the development of the College of Engineering at the University of Colorado. At the time of his appointment as Dean in 1919, there were only 475 students in electrical, civil and mechanical engineering.

At the present time the engineering enrollment is 980. His first task was that of improving the laboratory facilities in all the branches of engineering and today the University can boast of an engineering plant that is said to be unequaled anywhere in the Western States.

It was Dean Evans' early conviction that too many men fail as students in engineering because of poor methods of training, inadequate instruction in fundamentals, troubles at home, financial worries, or because they are unfitted for a career in engineering.

He was one of the first engineering educators to analyze the causes of failure among students and to seriously attempt to rectify this situation. That he has eminently succeeded in doing so may be verified by the professional records of over 3,000 engineering graduates who studied under his guiding supervision.

George Thomas Dean, assistant professor of civil engineering at Alabama Polytechnic Institute, has been appointed a lieutenant (jg) in the Naval Reserve.

Lindon J. Murphy, associate professor in the engineering extension service of Iowa State College, has been granted a leave of absence to accept a commission as a major with the United States Public Health Service.

James R. Villemonte has been given a leave of absence from The Pennsylvania State College, where he has been assistant professor of civil engineering. He is now attending the U. S. Naval Training Station, University of Arizona. He holds the rank of lieutenant (jg) in the U. S. Naval Reserves.

Blake R. Van Leer, of Raleigh, N. C., dean of the North Carolina State College Engineering School now on military leave, has just been promoted to the rank of colonel from that of lieutenant colonel at Washington, D. C., where he is serving as chief of the facilities branch of the Specialized Training Division of the War Department.

Appointment of Dr. Henry G. Fisk, a graduate of Ohio State University, as Director of the newly formed University of Wyoming Research Institute is announced.

The University of Wyoming Research Institute which Dr. Fisk will head ac-
tively beginning November 1, is the f
institution of its kind in Wyoming.
purpose is to aid, by scientific research,
the discovery, development, and exploi
tion of the natural resources of the sta

P. A. Upp, structural designer in t
bridge office of the Wyoming State Hi
way Department, Cheyenne, Wyo., for the past 7½ years, resigned Oct. 6 to accept an appointment as instructor in the civil engineering department at the University of Wyoming. He received a B.S. degree in civil engineering
from the Case School of Applied S
ence, Cleveland, Ohio, class of 1923, a
immediately joined the Illinois St
Highway Department.

Mr. Upp's background of practi
engineering includes important desi
work for highways, railroads and co
sulting engineers. While employed
Harrington and Cortelyou, consulti
bridge engineers, Kansas City, Mo.,
helped design the main river spans for
cantilever bridge over the Mississip
River at Baton Rouge, La. Prior to joi
ing the Wyoming Highway Departme
Upp was a bridge designer for the Mo
tana Highway Commission at Hele

Modern personnel system established in Wichita

Sound policies in municipal administration have been incorporated during the past year in the modernized personnel system of Wichita, Kan. Principal features of the plan are creation of good working conditions, assurance of equitable compensation, provision of career opportunities and an employee-training plan.

An employes' council, consisting of 20 representatives elected annually by employes of the various departments, holds a prominent place in the plan. Two members each are elected from the fire, police and street divisions of the city while the engineering, waterworks, inspection, traffic engineering, finance, park, forestry, air port and recreation divisions, the sewage disposal plant, the library, and the public welfare and legal departments have one member each on the council. Departmental or divisional heads are ineligible for election.

Chief functions of the council are to investigate and make recommendations on matters pertaining to the general welfare of the city employes, advise on per-
sonnel problems upon request and to co
sider personnel policies submitted to
by the city's personnel director. One
the council's members is elected to ser
on a five-member personnel adviso
board; the other four members being s
lected from outside the city governme

This advisory board investigates e
ployes' complaints of discrimination a
unfair treatment; gives advice in pe
sonnel problems; considers matters su
mitted by the personnel director and e
tablishes rules in conformity with t
merit system of personnel administratio

A manual has been issued by Wichi
to serve as a working guide for its o
cials and to acquaint its employes wi
the objectives of this modern personn
program. It describes the city's classific
tion plan; its compensation program
to salary adjustments, promotions, a
transfers; recruitment plan; and polici
regulating working hours, legal holiday
service ratings and retirement. Oth
items in the manual include rules
leaves of absence including vacatio
sick leave and injury or emergency lea
procedures, and a description of t
city's employe health and welfare pr
gram.

ore steel available
r construction

(*Continued from page* 1)

r, cost of transportation may boost
ice, since the seller is permitted to
, through his sale, the cost of ship-
to him, and also because the haul
en owner and purchaser may be
than if the latter purchased from
ormal source, such as a mill, a
ouse or a local dealer. Since avail-
urplus is widely scattered through-
e country, it may be a great dis-
from the only contractors who have
of the particular shapes available.

• • •

ion Gardiner dies; active
oad and concrete work

on Gardiner, vice president of the
er Machine Co., Columbus, Ohio,
in Columbus on Nov. 2, aged 59.
Gardiner was one of the founders of
American Road Builders Association
was serving the association as a vice
ident at the time of his death. He
was vice president of the American
rete Institute, in which organization
ad long been active in matters re-
g to the design of concrete mixes
in developments in connection with
se of truck mixers.

on Gardiner was born in Chicago,
18, 1884, graduate from the Uni-
ty of Illinois in 1909 and immedi-
became associated with the W. H.
nerman Co. as a junior engineer.
e years later Mr. Gardiner became
ern representative of *Engineering*
rd, continuing in that capacity after
onsolidation of the McGraw and Hill
ishing companies. In 1918 he joined
Lakewood Engineering Co. of which
as a vice president when the com-
was purchased by the Jaeger Ma-
e Co. in 1928.

JOBS OF THE WEEK

FACTORY, Michigan

The Austin Co., will design and construct factory addition to manufacture brass mill products for the Mueller Brass Co., Port Huron. To cost $1,500,000. The Defense Plant Corp., Washington, D. C., will finance.

HOSPITAL, Massachusetts

Rugo Construction Co., Boston, Mass., has been awarded a contract for a hospital, including 35 buildings, Trapelo Rd. and Forest St., Middlesex Co., for U. S. Engineers, Boston, Mass. The estimated cost is $1,700,000. Coolidge, Shepley, Bulfinch & Abbott, Boston, Mass., are the architects.

AIRPLANE PLANT, Texas

Consolidated Vultee Aircraft Corp., Fort Worth, Tex., awarded contract for the construction of an experimental building at plant to Austin Co., Fort Worth. The estimated cost is $1,250,000.

RESIDENCES, Knoxville, Tenn.

Worsham Brothers Construction Co., Knoxville, Tenn., has been awarded a contract by Earl Worsham, care of contractors, for 200 residences. The estimated cost is $1,000,000.

HOUSING, Berea, O.

Public Housing Authority, Cleveland, O., awarded a contract for the construction of 500 dwellings, to Welso Construction Co., Chicago, Ill., at $1,545,945. J. Byers Hays and Wilbur Watson, and Associates, Cleveland, are the architects.

ALCOHOL PLANT, Missouri

Sanderson & Porter, Kansas City, Mo., will design and construct an alcohol plant, which will be operated by the National Distillers Products Corp., New York, N. Y. The estimated cost is $4,000,000. Defense Plant Corp., is the owner. Work is under way.

GRADING, Texas

Peter Kiewit Sons Co., McDougal Construction Co. and Western Contracting Co., Sioux City, Ia., were the lowest bidders for grading in Dallas County when U. S. Engineers, Denison, Tex., opened bids, at less than $2,000,000.

HOUSING, Akron, O.

Public Housing Authority, Cleveland, O., received low bids from James McHugh, Chicago, Ill., on frame buildings at $1,615,985; from A. P. Miller, Inc., Atlantic City, N. J., on factory prefabricated, $1,537,000. Associated Architects, Akron, O., are the architects.

STEEL PIPE FOR NATURAL GAS CARRIER, Texas and West Virginia

Tennessee Gas & Transmission Co., Houston, Tex., awarded a contract for 900 miles 24-in. steel pipe for natural gas carrier to be constructed between Corpus Christi, Tex., and Cornwell, W. Va., to A. O. Smith Co., Milwaukee, Wis. The estimated cost is $9,750,000.

HOUSING, Chicago, Ill.

B. W. Construction Co., and Sherry-Richards Co., Chicago, Ill., will build 162 dwellings, and two stores, at One Hundred Thirtieth and 133rd Sts., and Langley Ave., at $7,597,000. Public Housing Authority, care of Chicago Housing Authority, Chicago, awarded the contract. Shaw, Naess & Murphy, Chicago., Ill., are the architects.

HOUSING, Brunswick, Ga.

Daniel Construction Co., Greenville, S. C., will complete construction of war housing to cost $1,897,813. Public Housing Authority, Atlanta, Ga., awarded the contract.

AIRPORT, Washington, N. C.

Du Bois Construction Corp., New York, N. Y., has been awarded a contract by the Civil Aeronautics Administration, Atlanta, Ga., for paving at Warren Field airport. Cost will exceed $1,000,000.

Note—Additional bidding and contract news on many projects large and small appear in the Construction News section beginning on page 15.

OBITUARY

James Henry Cheek, 41, an engineer with the Arizona state highway department, died at Clarkdale, Ariz., Oct. 23.

George K. Little, Sr., 68, who played a prominent part in development of the Warrior River, died at Tuscaloosa, Ala., Oct. 27. He was civilian chief area engineer at the U. S. Engineer's office in Mobile in 1917-18 and at that time was largely instrumental in the construction of locks on the Warrior in the Tuscaloosa area. He later was an engineer on the river power work at the Muscle Shoals project and from there went to Ohio, where he was superintendent of locks and dams on the Ohio River in the early 1920's. He returned to Tuscaloosa in 1923.

William C. Perkins, 75, of Langhorne Manor, Pa., died there Oct. 27. Mr. Perkins was employed as instrument man on the New York Central Railroad from 1890 to 1891, and with the Niagara Power Co., on the construction of its power tunnel from 1891 to 1893. He served as assistant engineer in charge of construction of Fairmount Park in Philadelphia from 1899 to 1906, in which year he became resident engineer in charge of construction of the New York State Highway Dept. He served as chief engineer and secretary of the Eastern Paving Brick Assn. from 1919 to the time of his death.

Maximillian Hugo von Pagenhardt, 59, engineer, died in Washington recently. Born in Stuttgart, Germany, he came to this country in 1910, after which he became a naval architect for the Mississippi Valley Transportation Co. at St. Louis, Mo. He designed vessels for use of the War Department on the Mississippi River, and also contributed articles on marine engineering to the technical journals.

Ralph H. Hosmer, 68, an official in the Bureau of Hydrography in the Pa. Department of Forests and Waters for more than 30 years died Oct. 31, at Harrisburg. A civil engineer who specialized in hydraulics, he served for many years as flood forecaster for the Susquehanna basin.

John C. McClure, 80, who with his brother the late W. N. McClure, California state engineer, directed construction of the Los Angeles Terminal R. R.—now a part of the Union Pacific—died recently at Altadena, Calif.

Lieut. Col. Robert F. Morrison, 47, President of the Hastings Pavement Co. and a member of the board of directors of The Asphalt Institute, died at his home in Scarsdale, N. Y., Oct. 16. Col. Morrison, an alumnus of Dartmouth College and of the Massachusetts Institute of Technology, joined the Hastings Pavement Co. after his graduation from M.I.T., served as a research engineer, later was made vice-president and in 1937 became president. At the time of his death he was on leave of absence for military duty with the U. S. A. Ordnance Department at Washington, D. C.

C. A. Beck, 67, general contractor, died at High Point, N. C., Nov. 4.

James L. Bullard, formerly superintendent of waterworks at Lexington, Wake Forest and Fayetteville, N. C., died Nov. 3.

Big new sewage plant desired by Los Angeles

In line with recent recommendati of a citizens' fact-finding committee, Los Angeles City Council on Oct. unanimously approved a proposal of Board of Public Works that the board authorized to negotiate with one or m sanitary engineers of national repute act as consultants in the construction sewage treatment work for Los Angel

It is said that the council reflects general desire in Los Angeles for acc erated action in clearing up pollution the beaches and making much need improvements in the city's now outmod sewage disposal system. This situati was referred to in *ENR*, Apr. 15, p. 5 and Sept. 2, p. 359.

CONTRACTS AND CAPITAL

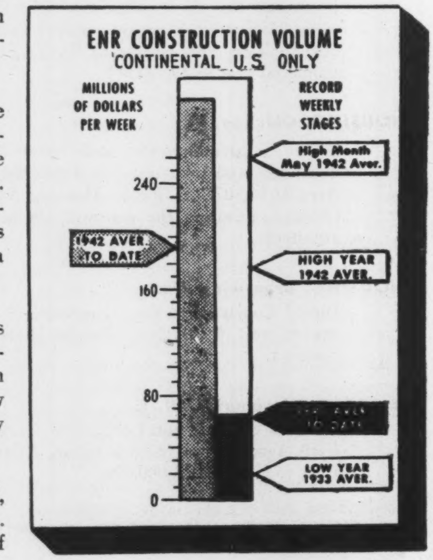
CIVIL ENGINEERING construction volume in continental U. S. totals $62,972,000 for the week. This volume, not including the construction by military engineers abroad, American contracts outside the country, and shipbuilding, is 79 percent below the total for the corresponding 1942 week, but exceeds the $35,206,000 reported for the holiday-shortened preceding week.

Private construction for the week tops a year ago by 119 percent, but public construction is 84 percent lower as a result of the 50 percent decrease in state and municipal work, and the 85 percent decline in federal volume.

The current week's volume brings 1943 construction to $2,779,930,000, an average of $61,776,000 for each of the 45 weeks of the period. On the weekly average basis, 1943 construction is 68 percent below the $8,766,218,000 for the 46-week 1942 period. Private construction, $408,899,000, is 21 percent lower than l year, and public construction, $2,37 031,000, is down 71 percent when justed for the difference in the num of weeks.

In the classified construction grou gains over last week are in waterwor sewerage, industrial and public bui ings, earthwork and drainage, streets a roads, and unclassified constructi Commercial building shows a gain.

New capital for construction purpo for the week totals $8,593,000, and made up entirely of state and munici bond sales. The new construction fina ing total for the 45 weeks of 19 $3,052,220,000, is 67 percent below t $9,587,535,000 reported for the 46-we 1942 period.



CONTRACTS

Continental U. S. Only
(Thousands of dollars)

	Week Ending Nov. 12 1942	Week Ending Nov. 4 1943
Federal	$290,768	$18,592
State & Municipal	5,854	1,226
Total public	$296,622	$19,818
Total private	7,599	15,388
TOTAL	$304,221	$35,206

Cumulative
1943......(45 weeks).......
1942......(46 weeks).......

Note: Minimum size projects included Waterworks and waterways projects, $15,0 other public works, $25,000; industrial bu ings, $40,000; other buildings, $150,000.

NEW PRODUCTIVE CAPITAL

	Cumulative 1942 46 weeks
NON-FEDERAL	$620,637
Corp. Securities	174,489
State & Mun.	206,993
R.F.C. loans	156,455
FPHA loans	....
R.E.A. loans	....
Fed.-Aid Hwy.	82,700
FEDERAL	$8,966,898
TOTAL CAPITAL	$9,587,535

ENR INDEX NUMBERS

Index Base=100		1913
Construction Cost	Nov. '43	294.41
Building Cost	Nov. '43	231.39
Volume	Oct. '43	142

CONSTRUCTION REPORTS

Compiled by Business News Department—Engineering News-Record, 330 W. 42nd St., New York
ELSIE EAVES, Manager *SCOTT McLEOD, Statistician*
(Daily service also available—Write for details)

WATER SUPPLY

OSED WORK

Mt. Pleasant—Imprv. water supply sys. Budde, city clk.

ryland—Yards & Docks, Navy Dpt., 18 d Constitution Ave. N.W., Wash., D. C., plant, Naval Model Basin, NOY 6738, at rock.

nt., Helena—City, City Hall, drilling well. 0. **FWA.**

t., Roundup—City, F. E. Liebetrau, comr., water softening plant. $15,000.

n., Jackson—R. E. Franklin, city comr., Hall, exten., imprv. water and sewerage Freeland Roberts & Co., Third National Bldg., Nashville, engrs.

n., Nashville—Utility Service Corp., E. P. baugh, McGavock Lane, pump. station ltration plant, exten. water sys. service in Dickerson & Gallatin Rd. Sects. 00.

ex., Dallas—V. R. Smitham, city mgr., imarily feeder watermains, $600,000. ing for FWA partial funds. Myers & Tower Petroleum Bldg., Rollins & Praetorian Bldg., and Koch & Fowler, National Life Bldg., engrs. CD 10/21— 10/28.

, Columbus—W. Maloney, town clk., Hall, WW sys. imprvs. $16,000.

., Wallaceburg—Utilities Comn., W. inning, Wallaceburg, filter unit and , 72,000 g.p.hr. cap. with low lift pump. $35,000. CD 4/15—ENR 4/29.

., Sorel—A. O. Cartier, city clk., under- d clear water concrete reservoir ad- g filtration plant. A. Plamondon, 369 ount Royal Ave., Montreal, engr.

ASKED

Bids Asked November 17

Prophetstown—K. Hansen, city clk., Hall, ww sys. imprvs. Over $15,000. rd R. Green Co., 208-18 Bever Bldg., Rapids, Ia., **engrs.**

Bids Asked November 18

I., North Kingston—Town, Water Works ., Contr. 1, 12 in. main pump station to Hill Rd., Contr. 2, pump station, equip., ville **Section.** $35,000. Jenks & Ballou, Industrial Trust Bldg., Providence, CD 10/27—ENR 11/4.

Bids Asked About November 22

., Port Isabel—B. B. Burrell, mayor, Hall, relocating pump. plant, constr. t. reservoir, 50 ft. wide, 9 m.g. capacity. $15,000. Plans deposit $25. Tamm & erald, 107 S. First St., Harlingen, engrs.

BIDDERS

if., El Cerrito & Richmond—East Bay cipal Utility Dist., 512 16 St., Oakland, 3, cleaning, lining, installing 30,400 lin. 6 in. steel watermain, from A. R. Reid 2600 Oakdale Ave., San Francisco, Sched- , $153,194; from McGuire & Hester, 796 ve., Oakland, Schedule 2, **$204,555.** CD

x., Fort Worth—S. H. Bothwell, city City Hall, Oct. 29, water lines, Tex. 41- Contr. 1, approx. 32,000 ft., 20- to 36-in. ater lines, from William & Whittle, 5422 ingbird Lane, Dallas, about **$412,000,** Cont. prox. 25,600 ft. 16 and 20 in. c.i. pipe- from E. L. Dalton, Great National Life , Dallas, **$171,000. FWA.** CD 10/19— 10/21.

RACTS AWARDED

lifornia—U. S. Eng., 751 S. Figueroa St., Angeles, Zone 14, water resources develop- , drilling wells, Contr. 04-353-eng-35, Co., to Rosco Moss Co., 4360 Worth St., Angeles, **$20,000.**

laware—U. S. Eng., 6 and Walnut Sts., ., Pa., water supply and sewerage fa- s expansion, Contr. 36-109-Eng-105, New e Co., to Moyer Bros., Altoona, Pa., 0.

lorida—U. S. Eng., 575 Riverside Ave., sonville, Zone 2, water supply addn., sys., sewage collection sys. and sewage ment plant, Neg-Jax-44-296, Lee Co., to H. Smith Constr. Co., 1525 San Marco ., Jacksonville, Zone 7, approx. **$160,000.** rded 10/29.

a., Panama City—City, City Hall, bldgs., l. structures for WW sys., Fla. 8-272-B, Hardaway Contg. Co., Columbus, Ga., 200; addnl. water sys. pipelines, Fla. -A, to J. J. Duffy, 176 W. Adams St., go, Ill., **$168,091. FWA.** Awarded 10/5. h & Gillespie, Realty Bldg., Jacksonville, 2, engrs. and archts.

linois—U. S. Eng., 520 Merchandise Mart, go, water pipleline, Contr. 11-032-eng-532, Fulton Co., to T. F. Cloghessy, Hammond, Ind., **$40,000.**

†**Maryland** and **District of Columbia**—U. S. Eng., 1 and Douglas Sts. N.W., Wash., D. C., installing water pipeline, Sect. 1, to Inter-county Constr. Co., 4720 Baltimore Ave., Hyattsville, Md., **$70,869.**

†**New Mexico**—U. S. Eng., Commercial Bldg., Albuquerque, water storage tanks, Santa Fe Co., to Perdue Tank Co., Wichita, Kan., **$18,500.**

O., Bucyrus—City, City Hall, approx. 3,900 ft. reservoir pipeline, to H. W. Baker Constr. Co., Wharton, **$16,000.** CD 9/15—ENR 9/23.

†**Tex., Texas City**—Galveston Co. Water Control & Imprvt. Dist. 3, ww sys., etc., Tex. 41-596, to Couch Constr. Co., and Dothan Co., Blackstone Hotel, Fort Worth, **$61,089. FWA.** Bids 11/2. CD 9/30—ENR 10/7.

Que., Louiseville—Municipality, aqueduct, day labor. **$15,000.** N. Lescouranec, 53 Ste. Dorothee St., engr.

Que., Montreal—J. A. Mongeau, city clk., pump. units, appurtenances at Youville Station, to Canadian Fairbanks-Morse Ltd., 980 St. Antoine St., **$23,200.** CD 9/2—ENR 9/9.

Sask., Moose Jaw—Dpt. National Defense (Air), Ottawa, Ont., outside services at S. F. T. School, 12, to Saskatoon Const. Co. Ltd., 817 2 Ave. N., Moose Jaw, **$28,000.**

Location of ENR Correspondents

Symbols and Abbreviations Include:

†	Federal Government
★	Project of $500,000 or over
ENR	Engineering News-Record
CD	Engineering News-Record Construction Daily
A-E-M	Architect-Engineer-Management type of contract

Projects—By Size

Construction projects here reported cover the United States and Canada, are of these minimum sizes or larger: water supply, earthwork, waterworks, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

Classes of Construction

(Named in order of Listing)

Water Supply
Sewers, Waste Disposal
Bridges
Streets & Roads
Earthwork, Waterways
Unclassified
Latin America
Public Buildings
Commercial Buildings
Industrial Buildings

Stages Reported

PROPOSED: (except Streets & Roads):

BIDS ASKED (new announcements only. For full calendar, see also preceding issues of ENR);

LOW BIDDERS: On jobs below $500,000 value all low bidder news will be the final reports published on the projects involved except where award is not made to the low bidder. In this case, a supplementary contract award report will be published.

CONTRACTS AWARDED: Except awards to low bidders previously reported in low bidder stage.

Dates shown are of issue in which last previous report was published.

Note: To comply with censorship requirements, addresses on some reports are being generalized. Data which would reveal the purpose of the improvements and the size are withheld. The name of contractor and general area are reported.

SEWERS, WASTE DISPOSAL

PROPOSED WORK

Colo., LaJunta—$40,000 bond election soon, sanitary sewer lines, G. Hine, city engr.

†**Colo., Lakewood** — Lakewood Sanitation Dist., rejected bids Oct. 21, 80,000 lin. ft. 6- to 12-in. vitr. clay sanitary sewer line $350,000. **FWA.** $70,000 bond election Nov. 19, for above. Will readvertise. Prouty Bros., Mining Exchange Bldg., Denver, engrs. CD 10/26—ENR 10/28.

Conn., Fairfield—F. B. Shaw, chn., Mill Hill, Southport, brick, steel, concrete incinerator and town garage, Reed St. Sect. $75,000. Solomon & Keis, 257 Bway., Troy, N. Y., engrs.

Ill., Woodstock—Imprv. sewerage sys. in Kelsey addn. and in East Judd and Olson Sts. Suhr, Berryman, Peterson & Suhr, 130 N. Wells St., Chicago, engrs.

†**La., Benton**—D. W. Brownlee, secy. Bossier Parish Police Jury, sewage disposal plant. La. 16-194A, $126,152. **FWA.** T. L. Tatum, Levy Bldg., Shreveport, engr.

O., Coldwater—M. DeCurtins, village clk., storm sewers, outlets. $55,000.

O., Elyria—I. D. Faxon, dir. P. Serv., subtrunk storm water sewer, Hawthorne St. $26,000. J. M. Powell, city engr.

O., Middletown—Combined storm and sanitary sewer in Ninth Ave. $340,000. L. B. Diefenbach, city engr.

†**R. I., Newport**—City, Municipal Office, City Hall, sanitary sewer, Private Line crossing Beacon and Maple Sts. $80,000. **FWA.** Jenks & Ballou, 2600 Industrial Trust Bldg., Providence, engrs. CD 10/25—ENR 10/28.

†**S. C., North Charleston**—St. Phillips and St. Michaels Pub. Service Dist., North Charleston, imprv. sewerage sys., garbage disposal sys., fire fighting equip. $21,692. **FWA.**

★**Tex., Dallas**—V. R. Smitham, city mgr., City Hall, sanitary sewer collection lines, $700,000. Applying for FWA partial funds. Myers & Noyes, Tower Petroleum Bldg., Rollins & Forrest, Praetorian Bldg., and Koch & Fowler, Great National Life Bldg., Dallas, engrs. CD 10/21—ENR 10/28.

Tex., Houston—Sanitary sewers in Herman Park, etc. Over $25,000. L. Fugate, c/o city, engr.

†**Va., Fairfax**—Fairfax Co., Fairfax, lateral sewer lines in Sanitary Dist. 1, Lee Boulevard Heights, Groveton, Greenway Downs and Tremont Gardens. $365,000. Bond election planned. **FWA.**

BIDS ASKED

Bids Asked November 15

N. Y., Brooklyn—President Brooklyn Boro, Boro Hall, Zone 2, reconstructing, repairing sewers, appurtenances in Bay Parkway and Myrtle Ave.

Bids Asked November 18

†**Va., Portsmouth**—A. S. Owens, city mgr., City Hall, installing storm sewers, constructing sidewalk, vicinity of housing along Gosport Rd. and Elm Ave., Va. 44-324. $85,000. **FWA.** R. S. Royer, Builders Exchange Bldg., Richmond, consult. engr. CD 10/5—ENR 10/7.

Bids Asked November 19

†**Ala., Phenix City**—E. Reese, mayor, City Hall, sanitary sewer exten., Ala. 1-190. **FWA.** Extended date. Chas. Holstein, Phenix City, engr.

Bids Asked November 26

N. J., East Orange—Cities of East Orange, Summit, and Newark, Twps. of Hillside, Union, Maplewood and Millburn, Boro of Roselle Park, Towns of Irvington and West Orange, Village of South Orange, organized in Joint Meeting at Council Chamber, City Hall, East Orange, Sect. 3, Relief Trunk Sewer, Contr. 1, Div. B. sewer tunnel. Bids 9/9 rejected. G. H. Cullis, permanent chn., E. S. Rankin, City Hall, Newark, secy. E. T. Killam, 142 Maiden Lane, New York, N. Y., consult. engr. CD 11/8—ENR 9/16.

†**N. M., Bayard**—L. Peipelman, mayor, City Hall, sewer imprvs., NM 29-123. $74,691. **FWA.** Plans deposit $25. Koch & Fowler, Great Natl. Life Bldg., Dallas, Tex., engrs. CD 10/14—ENR 10/21.

Bids Asked

N. J., Skillman—N. J. Bureau Institutions & Agencies, E. Hanover St., Trenton, sewers, water lines, underground conduits for steam heat.

LOW BIDDERS

Ind., Clinton—Bd. P. Wks., C. D. Wright, chn., Oct. 29, completing sewage treatment plant, sewers, from E. M. Scheflow, 8 N. Spring St., Elgin, Ill., **$35,177. Est. $38,193.** CD 10/20.

La., New Orleans—Sewerage & Water Bd., 526 Carondelet St., Nov. 4, furnishing, laying approx. 4,460 lin. ft., 8- to 27-in. sewer pipe,

SEWERS, etc. (Low Bidders, Cont'd.)

Contr. 143-S, from Mike Mitchell & Sons, 2332 Gravier St., **$47,321.** CD 10/27.

†La., Pineville—Town, Nov. 2, outfall sewer line, lift station, La. 16-129, Contr. 4, from B. Brezner, Alexandria, **$47,794. FWA.** CD 10/18—ENR 10/21.

O., Cleveland—City, S. F. David, dir. Pub. Serv., replacing sewer lines of Big Creek Intercepting Sewer in Jennings Rd., from Sylvestro & DePaolo, 1424 Lakeview Rd., **$48,836.** J. C. Wenrick, city engr.

†Va., Norfolk—Municipal Director P. Wks., pump. sta. on site near Foreman Dr. and Culford Crescent, to pump sewage from Ocean View and Commodore Park, installing 2 new pumps and motors at First View St. pump. sta., from A. G. Pinkston & Co., Old Kirn Bldg., Portsmouth, **$31,750. FWA.**

CONTRACTS AWARDED

†Calif., San Pablo — San Pablo Sanitary Dist., Fire House, sanitary sewer mains, Calif. 4-531, to McGuire & Hester, 796-66 Ave., Oakland, **$41,971. FWA.** Bids 10/29. CD 10/19—ENR 10/21.

†Florida—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, sewage treatment facilities, Neg-Jax-44-282, Orange Co., to Gabel Constr. Co., Orlando, and 216 Graham Bldg., Jacksonville, Zone 2, approx. **$80,000.** Awarded 10/29.

†Florida—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, addnl. drainage facilities, Neg-Jax-44-297, Pinellas Co., to W. H. Armston Co., Duneden, approx. **$30,000.** Awarded 10/27.

†New York—U. S. Eng., 120 Wall St., New York, Zone 5, sewage treatment plant changes, Contr. 30-075-Eng-219, Suffolk Co., to South Shore Contr. and Dredging Corp., and J. F. Dunn, 100 West Ave., Patchogue. **$30,000.**

†O., Canton — Stark Co., sanitary sewer completion, in section known as Toytown, eastern extremity of city, to A. DeBlasio, 2914 Southern Blvd., Youngstown, **$92,031.** Est. $100,000. **FWA.** Bids 9/30. CD 9/1—ENR 9/9.

†South Carolina—U. S. Eng., 33 Customhouse, Charleston, sewage lift station, force main, Iden. 38-081-44-74, Neg., Charleston Co., to Simons-Mayrant Co., 16 Broad St., Charleston, under **$50,000.** Bids 10/29.

†Tex., Texas City—Galveston Co. Water Control & Imprvt. Dist. 4, sanitary sewer collection sys. and treatment plant, Tex. 41-596, to Couch Constr. Co., and Dothan Co., Blackstone Hotel, Fort Worth, **$128,380. FWA.** Bids 11/2. CD 9/30—ENR 10/7, under WW.

†Utah, Clearfield—Town, G. H. Holt, pres. Town Bd., sanitary sewerage sys., to Peter Kiewit Sons Co., 1099 S. Logan Ave., Denver, Colo., **$144,794.** Est. $186,000. **FWA.** Bids 10/28.

BRIDGES

PROPOSED WORK

Ia., Boone—Boone Co., H. Fitzgerald, aud., bridges for 1944. $35,000. P. V. Saum, Boone, co. engr.

★**Que., Dorval**—Canadian National Rys., H. A. Dixon, ch. eng. (Oper.), 360 McGill St., Montreal, viaduct. $1,000,000.

★**Que., Quebec City**—Province of Quebec, c/o Ministry of Public Works, constructing hy. bridges $808,000; highway bridges, imprvs., maintenance. $362,500. O. Desjardins, Dpt. P. Wks., Quebec City, engr.

BIDS ASKED

Bids Asked November 16

Indiana—State Hy. Comn., S. G. Hadden, chn., Indianapolis, repairing 1 span, 272 ft. steel truss bridge, new concrete floor, untreated timber sidewalks over Tippecanoe River, White Co. Plans deposit $1.75. R. Bower, c/o owner, ch. engr.

Iowa—State Hy. Comn., Ames, paving invert under present 22x38 ft. concrete slab bridge and placing dike at inlet end, on U. S. 275, north part of Hamburg, FN-77, Fremont Co. F. R. Whute, ch. engr.

Bids Asked November 19

N. Y., New York—President Manhattan Boro, Municipal Bldg., Zone 7, replacing roller nests, installing sliding seats and reconstruction of Riverside Dr. Viaduct from 200 ft. south of St. Clair Pl. to 135 St. Plans deposit $5.

Bids Asked November 26

Tennessee—State Hy. Dpt., Nashville, repairing, flooring, painting bridge over Hiwassee River on State Route 68, Project SN-574-A, Polk Co.

LOW BIDDERS

Illinois—State Div. Waterways, 201 W. Monroe St., Springfield, Nov. 3, repairing substructure and superstructure bridge over Illinois River at Peru, La Salle Co., from L. Balkin, 1850-1858 W. Hubbard St., Chicago, **$51,235.** CD 10/26—ENR 10/28.

Wisconsin—State Hy. Comn., Madison, Oct. 29, imprv. North Water St. bridge, Monroe Co., from I. H. Pertzsch, Onalaska, **$56,943.** CD 10/15—ENR 10/21.

Que., Ste. Adele—Municipality, c/o J. A. Granger, clk., 20x100 ft. rein.-con. bridge approaches over North River, from R. E. Guay, Ste. Adele. Est. **$25,000.** O. Desjardins, Dpt. P. Wks., Quebec City, engr.

CONTRACTS AWARDED

†Alaska, Ketchikan—City, City Hall, trestle imprvs., Water and Dock Sts., to E. Brokke, Ketchikan, **$25,667. FWA.** CD 10/19—ENR 10/21.

STREETS AND ROADS

BIDS ASKED

Bids Asked November 15

New Jersey—S. Miller, Jr., comr. State Hy. Dpt., Trenton, grading, bituminous concrete, plain concrete paving 0.336 mi. Fed. Proj. DA-WI-13, Bergen Co. Plans deposit $10.

Bids Asked November 16

Ohio—State Hy. Dpt., Columbus, grading, drainage structures, rein.-con. paving, waterbound macadam and asphaltic concrete resurfacing 2.818 mi. Sects. A and Akron of SH 543, US 224 and Sect. Akron of SH 526, Summit Co.; grading, drainage structures, concrete paving, etc., 0.313 mi. Richford, Twining and Dayton Sts., Lucas Co.; grading, drainage structures and concrete paving 0.332 mi. Sect. Kent of SH 94, Portage Co. $20,500; asphaltic concrete resurfacing 1.19 mi. Sect. Berea of SH 713, Cuyahoga Co., $25,200; 2.083 mi. Sect. Norwalk of SH 289 and 290, Huron Co. $57,300; new and salvaged brick wearing course resurfacing 0.99 mi. Sect Canton of SH 72, US 30, Stark Co., $40,400; grading, drainage structures, concrete paving 2.53 mi., constructing continuous concrete steel beam bridge with concrete deck and substructure over White Oak Creek and roadside imprvs., Sect. Higginsport, R-1 and R-2, SH 7, US 52, Brown Co.

Bids Asked November 17

Louisiana—Dpt. Hys., D. Y. Smith, dir., Baton Rouge, 1,500 cu. yd. washed gravel and 500 cu. yd. sand clay gravel furnished, spot dumped on certain roads, Ward 5, S. P. 703-00-59, East Feliciana Parish; 8,970 cu. yd. clam shell furnished spot dumped, S. P. 703-00-60, St Bernard Parish; 5,000 cu. yd. washed gravel furnished spot dumped, S. P. 703-00-61, Tensas Parish.

New York—President Queens Boro, Queens Boro Hall, 120-55 Queens Blvd., Kew Gardens, Zone 15, making borings by core boring method as shown on plans or directed by engineer, on site of proposed Midtown Hy. between 58 St. (Betts Ave.) and Queens Blvd. Plans deposit $2.

Bids Asked November 26

Tennessee—State Hy. Dpt., Nashville, grading, drainage, paving, incl. 3 bridges, 4.926 mi. State Route 1, to State Route 102, in Smyrna, DA-WR 9 and SN-FAP 279-A(1), Rutherford Co.; paving 3.333 mi. sect. State Route 34 beginning at State Route 9, exten. to Knox-Jefferson Co. line, Knox Co.

Bids Asked

Iowa—State Hy. Comn., Ames, rejected bids Nov. 2, imprv. M-2224, Allamakee Co. F. R. White, ch. engr. CD 10/25.

Ohio—State Hy. Dpt., Columbus, rejected bids Oct. 19, imprv. 0.578 mi. Montgomery Co. CD 10/15.

LOW BIDDERS

California—State Div. Hys., Sacramento, imprv. 17.9 mi. road, from C. C. Wood, Box 599, Lodi, **$259,595;** 6.7 mi. road, from Louis Biasotti & Son, 40 W. Clay St., Stockton, **$92,583,** both Calaveras Co. CD 10/25.

Calif., Benicia—City, City Hall, Nov. 2, imprv. 5.7 mi. streets, Street Assessment Dist. 1, from A. E. Downer, 1429 N. Baker St., Stockton, **$217,719.** CD 10/19—ENR 10/21.

Calif., Vallejo—City, City Hall, Nov. 1, imprv. portions Maine and Stutter Sts., from C. M. Syar, Box 1431, **$29,858.** T. D. Kilkenny, city engr.

Colorado—State Hy. Dpt., Denver, Nov. 4, imprv. 7.595 mi. Mesa Co., from Brown Bros. Constr. Co., Colorado Springs, **$144,295.** CD 10/26—ENR 10/28.

Florida—State Rd. Dpt., Tallahassee, Nov. 2, imprv. Road 594, Santa Rosa Co., from Smith Eng. & Constr. Co., Pensacola, **$54,955.** CD 10/19—ENR 10/21.

†District of Columbia and Virginia—Pub. Roads Admin., 1440 Columbia Pike, Arlington, Va., Oct. 30, Project A-1, military hy., Arlington Co., Va., from Potts & Callahan Contracting Co. Inc., 500 W. 29 St., Baltimore, Md., **$98,420.** CD 10/22.

Georgia—State Hy. Dpt., Atlanta, Oct. 29, imprv. 1.05 mi. Piedmont Rd., beginning at Roswell Rd., Contr. 23, Fulton Co., from Sam Finley, Inc., 292 North Ave. N.W., Atlanta, **$49,674.**

Ill., Springfield—City, City Hall, Nov. 2, imprv. 0.9815 mi. Sect. 52-CS, from Sangamo Constr. Co., P. O. Box 222, Springfield, **$62,474.** L. A. Lush, city engr.

Louisiana—State Hy. Dpt., Baton Rouge, Oct. 27, imprv. 0.166 mi. Rapids Parish, from Forcum-James Co., Dyersburg, Tenn., **$26,295.** CD 10/19—ENR 10/21.

†La., Pineville—Mayor and Bd. Aldermen, Nov. 2, paving 2,000 ft. College Dr., O'Neal St. and Lawrence Blvd., from A. C. Campb 86 Crockett St., Shreveport, $28,706. FW

Michigan—State Hy. Dpt., Lansing, Oct. imprv. Wayne Co., from Robert Meyers E. Chapin St., Cadillac, **$29,428.** CD 10/2

Ohio—State Hy. Dpt., Columbus, Oct. imprv. 0.846 mi. Stark Co., from The Gar Bros. Co., 415 9 St. S.W., Canton, $102, Est. $121,600.

Virginia—State Hy. Dpt., Richmond, N 4, imprv. 3.31 mi. Princess Anne Co., fr W. H. Scott, Inc., Franklin, **$232,014.** 10/25—ENR 10/28.

Washington—State Hy. Dpt., Olympia, N 2, imprv. 2.5 mi. Spokane Co., from Sather Sons. 1039 Greenwood Ave., Seattle, $157, CD 10/21.

CONTRACTS AWARDED

Arkansas—State Hy. Dpt., Little R imprv. 5.5 mi. Conway Co., to Reynolds Sutton, Tyler, Tex., **$109,543.** Bids 10/27. W. Mitchell, Little Rock, engr. CD 10/18 ENR 10/21.

†Florida—U. S. Eng., 575 Riverside Av Jacksonville, Zone 2, roads, aprons, wal Neg-Jax-44-293, Highlands Co., to Okeechob Constr. Co., 517 Phelps St., Jacksonville, Zo 1, and George P. Rentz Co., 1717 Evergre Ave., Jacksonville, Zone 6, approx. $60,

†Florida—U. S. Eng., 575 Riverside Av Jacksonville, Zone 2, reconditioning existi roads, Neg-Jax-44-280, Lee Co., to Clea Bros. Constr. Co., Georgia Ave., West Pa Beach, approx. **$40,000.** Awarded 10/28.

Florida—State Rd. Dpt., Tallahassee, impr 5.819 mi. Polk Co., to Langston Constr. C Orlando, **$122,446;** 10.04 mi. Palm Beach C to R. H. Wright & Son, Columbus, Ga., $12 **645.** Bids 10/26, awarded 11/1. CD 10/19 a 10/15.

Georgia—State Hy. Dpt., Atlanta, impr 1.45 mi. Briarcliff Rd., Atlanta-Buford H Contr. 22, De Kalb Co., to W. L. Cobb, In Decatur, **$26,659.** Bids 10/29.

†Kansas—U. S. Eng., 10 E. 17 St., Kan City, Mo., grading, surfacing, sewer li temporary frame bldgs., etc., Contr. 23-02 Eng-145, Barton Co., to Martin K. Eby Cons Co., Wichita, **$40,000.**

†Kansas—U. S. Eng., 10 E. 17 St., Kan City, Mo., surfacing, constructing tempora frame bldgs., water, electric and sewer ser ice, Contr. 23-028-Eng-144, Ellis Co., to M. Stauffer, Newton, **$40,000.**

†Kansas—U. S. Eng., 10 E. 17 St., Kan City, Mo., grading, surfacing, tempora frame bldgs., etc., Contr. 23-028-Eng-1 Pratt Co., to Martin K. Eby Constr. C Wichita, **$40,000.**

Neb., Lincoln—State Bd. Control, gradin flood control at State Prison, to Platt Vall Constr. Co., Grand Island, **$29,361.** Bids 10

†Ohio—U. S. Eng., Wright Field, pavin constructing railroads, utilities, Contr. 33-04 Egn-44, Montgomery Co., to W. L. Johns Constr. Co. & Associates, Hicksville, $300,

Ohio—State Hy. Dpt., Columbus, impr Wayne Co., to Ohio Rd. Imprvt. Co., 20 Broad St., Columbus, **$62,560** est. $64,30 2.576 mi. Clermont Co., to Brewer & Brew Sons, Inc., 81 W. Water St., Chillicoth **$33,229,** est. $33,220. Bids 10/29. Reject bids 10/29, imprv. 0.441 mi. Summit C channel protection, Richmond Co. Receiv no bids 10/29 imprv. 0.643 mi. Miami C 0.494 mi. Ashtabula Co. CD 10/22.

O., Cincinnati—City, imprv. Harvey A exten. from Rockdale to Glenwood Aves. Murdock Constr. Co., 1654 Sherman Av **$42,063.** Bids 9/28.

†Oklahoma—U. S. Eng., 231 W. Main S Denison, Tex., roads, Contr. 41-242-Eng- Comanche Co., to Spencer Constr. Co., Carrol ton, Tex., **$100,000.**

†Texas—U. S. Eng., Fort Sam Housto widening, repairing, exten. road, Bexar C to R. W. Briggs & Co., and M. B. Killian, Su set Rd., San Antonio, **$43,600.**

Utah—State Rd. Comn., J. S. Evans, ch State Capitol, Salt Lake City, natural ro asphalt surfacing 1.024 mi. state hy. betwe Dragerton and Columbia, Carbon Co., to W. Clyde & Co., Springville, $92,074. E $87,159. Bids 10/27.

EARTHWORK, WATERWAYS

PROPOSED WORK

★**†Colo., Leadville**—U. S. Bureau of Mine Security Bldg., Denver, 11,326 ft. drai age tunnel, and 2 lateral drainage tunne totaling 5,856 ft. for reclaiming properties Leadville Dist. $1,400,000.

O., Elyria—Lorain Co. Bd. Comrs., impr 36 St. ditch in Lorain and Sheffield Twp incl. 11,000 ft. 48- to 96-in. rein.-con. pi $337,090. D. E. Patterson, Elyria, co. engr.

★**†Texas**—Bureau of Reclamation, Interi Bldg., 19 and C Sts. N.W., Wash., D. C reservoir, Little Elm River area. $1,635,

★**†Texas**—Bureau of Reclamation, Interi Bldg., 19 and C Sts. N.W., Wash., D. C modification of Garza Reservoir, Garza C $866,974.

★**†Texas**—Bureau of Reclamation, Interi Bldg., 19 and C Sts. N.W., Wash., D. C surveys soon water reservoir on Clear Fo Creek area of Graham Co. $2,000,000.

THWORK, etc.—(Proposed Work, Cont'd.)

ex., Dallas—Bureau of Reclamation, In-
erior Bldg., 19 and C Sts. N.W., Wash.,
floodway on Trinity River. **$790,000.**

x., Fort Worth—Bureau of Reclamation,
ior Bldg., 19 and C Sts. N.W., Wash.,
floodway on Trinity River in vicinity
re. **$466,895.**

ex., Grapevine—Bureau of Reclamation,
terior Bldg., 19 and C Sts. N.W., Wash.,
surveys soon reservoir on Denton
$4,579,784.

ASKED

Bids Asked November 16

a—State Hy. Comn., Ames, removing
x. 50% of Missouri River dike approx.
cu.yd. excav., M-4274, Fremont Co. F.
hite, ch. engr.

Bids Asked November 23

ifornia—State Div. Water Resources, P.
Bldg., Los Angeles, imprv. Alamitos Bay
Ocean Beach in Seal Beach and Long
. Ed Hyatt, P. Wks. Bldg., Sacramento,

Bids Asked November 24

ashington—Bureau of Reclamation, Den-
Colo., furnishing, del. f.o.b. cars at ship-
point or f.o.b. cars Sunnyside, 2 radial
with wall plates, pin bearings, accesso-
and two 5,000 lb. manually operated gate
each complete with 2 drum bearings
ith wire ropes, sockets, and turnbuckles
stallation at Wasteway 5, Yakima Ridge
, Roza Div. **Yakima Project, Spec.**
D. S. O. Harper, ch. engr.

Bids Asked November 26

ashington—Bureau of Reclamation, Den-
Colo., furnishing, del. in stock piles,
x. 30,500 tons sand and 25,500 tons
aggregate for Yakima Ridge Canal,
Div., Yakima Project, Spec. 1708-D.

Bids Asked December 1

lorado—Bureau of Reclamation, Court-
Denver, furnishing, del. in stock piles,
x. 6,200 tons sand and 3,300 tons coarse
gate for Jackson Gulch Dam and inlet
outlet canals, Mancos Proj., Spec. 1709-D.
Harper, ch. engr.

BIDDERS

ois—State Div. Waterways, 188 W. Ran-
St., Chicago, Oct. 28, removal shoals,
ing channels along Northwesterly shore
ippersink Lake in Fox Chain-of-Lakes,
Co., and removal shoals from bed Fox
immediately downstream from Mc-
y Dam in McHenry Co., from A. P.
d, McHenry, **$26,820.**

TRACTS AWARDED

ansas—State Hy. Dpt., Little Rock, re-
ent work on Arkansas River, near Pine
Jefferson Co., to McGeorge Constr. Co.,
Bluff, **$57,185;** on White River at DeValls
Prairie Co., **$73,732.** Bids 10/27. CD
—ENR 10/21.

nsas—U. S. Eng., 416 Wright Bldg.,
2, Okla., levee repairs, Neosho Co., to
Reed, Iola. Est. under **$25,000.**

uisiana—U. S. Eng., U. S. Post Office &
House, Vicksburg, Miss., approx. 140,000
earthwork on west bank Mississippi
Sol. No. 22-052-44-28, Madison Parish,
oneer Contracting Co., Dyersburg, Tenn.,
. Bids 10/21.

ine—U. S. Eng., 31 St. James Ave.,
n, Mass., clearing, No. **19-023-44-NEG**
roostook Co., to Bridge Constr. Co., 335
r St., **Augusta, $20,000.** Est. $10,000.

J., Jersey City—The Central R. R. Co. of
A. E. Owen, ch. engr., Reading Term-
Phila., Pa., dredging in River at foot
ohnson Ave., to Taylor Dredging Co.,
of Communipaw Ave., **$25,000.**

xas—U. S. Eng., 25 St. and Avenue F,
ston, dredging Intracoastal Canal, Proj.
Brazoria Co., to Atlantic, Gulf & Pacific
ing Co., 13 Park Row, New York, N. Y.,
x. **$200,000.**

xas—U. S. Eng., 25 St. and Avenue F,
ston, dredging Sabine Channel, Galveston
to McWilliams Dredging Co., Hibernia
, New Orleans, La., **7.43c.** per cu. yd.

xas—U. S. Eng., 25 St. and Avenue F,
ston, dredging Sabine channel, Galveston
to Standard Dredging Co., New York,
, approx. **$142,000.**

UNCLASSIFIED

POSED WORK

., Hot Springs — IMPROVEMENTS —
E. Jackson, clk., City Hall, imprvs.,
. $150,000.

California—CONSTRUCTION—U. S. Eng.,
1 S. Figueroa St., Los Angeles, Zone 12,
ruction at Army Air Forces installation,
side Co. $1,000,000.

lorado—IMPROVEMENTS—U. S. Eng.,
17 St., Denver, imprvs., night lighting
Otero Co. $50,000 or more.

Fla., Miami — IMPROVEMENTS — City,
'y Hall, imprvs., large harbor facilities
urning basin at Virginia Key, near here.
x. $16,000,000. Federally financed.

†Fla., Pensacola—AIRPORTS—Civil Aeronautics Admin., Municipal Airport, Atlanta, Ga., bids soon airport, $100,000.

†Idaho, Malad City — RUNWAYS — Civil Aeronautics Admin., Boeing Field, Seattle, Wash., 2 runways for intermediate airport. $150,000.

Louisiana—OIL WELL—Atlantic Refining Co., M. Esperson Bldg., Houston, Tex., drilling, developing deep test oil well, St. Mary Parish. $25,000.

Louisiana—OIL WELL—Continental Oil Co., Oil & Gas Bldg., Houston, drilling, developing 8,000 ft. test oil well, Acadia Parish. Over $25,000.

Louisiana—OIL WELL—Houston Oil Fields Material Co., Inc., 1524 Maury St., Houston, Tex., drilling, casing, developing 6,000 ft. test oil well, earthern storage, Calcasieu Parish. Over $25,000.

Louisiana—OIL WELL—Humble Oil & Refining Co., Humble Bldg., and Continental Oil Co., Oil & Gas Bldg., Houston, Tex., drilling, casing, developing new 11,000 ft. test oil well, Evangeline Parish. $45,000.

Louisiana—OIL WELL—Hassie Hunt, et al, Lake Charles, drilling, casing, developing 11,000 ft. test oil well, Acadia Parish. $45,000.

Louisiana—OIL WELL—Shell Oil Co., Inc., Shell Bldg., Houston, Tex., drilling, developing new deep test oil well, Assumption Parish. $25,000.

★**La., New Orleans**—AIRPORT—City, approved $5,000,000 bond issue, airport imprvs. CD 10/8—ENR 10/14.

†Maryland—LAND PLANE CATAPULT, etc.—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., landplane catapult and naval air transport service bldg., NOY 7388, teletalk sys., NOY 7896, both at Naval Air Station, Patuxent River.

Mass., East Boston (Sta. Boston)—AIRPORT IMPROVEMENTS—Commonwealth of Massachusetts, Div. Waterways, Dpt. P. Wks., 100 Nashua St., Boston, rejected bids Oct. 26, filling, dredging General Logan airport. CD 10/29—ENR 11/4, under LB.

†Minn., Owatonna—ELECTRICAL DISTRIBUTION SYSTEM—Steele-Waseca Cooperative Electric Co., Owatonna, addnl. rural electric distr. sys. **$65,000 REA.**

Miss., Columbia — ELECTRIC SERVICE CONNECTIONS—Pearl River Valley Electric Assn., c/o Superintendent, Columbia, electric service connections to existing REA lines. $35,000.

†Mo., Grandview—AIRPORT GRADING—Civil Aeronautics Admin., City Hall, Kansas City, Mo., addnl. grading, south, western and north ends of airport field, near here. $200,000.

Neb., Lincoln—TRACK REMOVAL, etc.—Lincoln City Lines, Inc., 710 J St., removing street car rails and restoring pavement. $125,000.

†Neb., Norfolk — AIRPORT RUNWAYS — City, new bids soon, airport runways. Over $250,000. CAA. CD 9/8—ENR 8/26.

O., Cleveland—PIERS—S. F. David, dir. P. Service, City Hall, making plans concrete piers at Perkins Beach, along Lake Erie. $120,000. S. W. Wood, Lake Bluff, Ill., consult. engr. J. W. Wenrick, city engr.

★**†O., Mansfield**—AIRPORT—City, municipal airport. $2,000,000. Federal allot. approved. W. C. Statler, city engr.

★**†O., Springfield**—AIRPORT—City municipal airport. $1,050,000. Federal gr. approved. W. E. Lucas, city engr.

†Oklahoma—FUEL OIL DISPENSING SYSTEM, etc.—U. S. Eng., 416 Wright Bldg., Tulsa, Zone 2, fuel oil dispensing sys., access asphalt paving, etc., Sol. 34, 006-44-17, Muskogee Co. Over $25,000.

Okla., Moore—OIL WELLS—Mid-Continent Oil & Gas Assn., Continental Bldg., Dallas, Tex., drilling, developing 1 or more deep test oil wells, earthen storage, etc. Over $25,000.

†Tenn., Columbia—HANGAR, etc.—Maury County Airport, c/o Esq. G. Qade Wilkes, Spring Hill, hangar, runways for airport. $25,000. CAA.

†Texas — IMPROVEMENTS — U. S. Eng., Fort Sam Houston, imprvs., bldg., Midland Co.

†Texas—IMPROVEMENTS—U. S. Eng., 25 St. and Avenue F, Galveston, imprvs., bldgs., outside water, sewer, gas extens., excav., paving, etc., Sol. 41-243-44-C66, Galveston Co.

Texas—OIL WELL, etc.—Arkansas Fuel Oil Co., Esperson Bldg., Houston, drilling, casing, developing 6,822 ft. test oil well, earthen storage, on banks of Rio Grande River, Hidalgo Co.

Texas—OIL WELL—La Gloria Corp., Driscoll Bldg., Corpus Christi, drilling, developing 7,000 ft. test oil well, earthen storage, Ballard Farms subdivision, Brooks Co.

Texas—OIL WELL, etc.—Glen H. McCarthy, Inc., Sterling Bldg., Houston, drilling, casing, developing new 10,000 ft. test oil well, earthen storage, Brazoria Co. Over $25,000.

Texas—OIL WELL—W. L. Pickens, et al, Magnolia Bldg., Dallas, drilling, developing test oil well, earthern storage, fuel lines, etc., Mauritz field, Jackson Co.

Texas—OIL WELL—Stanolind Oil & Gas Co., Fair Bldg., Fort Worth, drilling, developing new deep test oil well, Shafter Lake area. Andrews Co. Over $25,000.

Texas—OIL WELLS—Sun Oil Co., Esperson Bldg., Houston, drilling, casing, developing 8 deep test oil wells, Seeligson Field, Jim Wells Co. Over **$100,000.**

Texas—OIL WELL—Sun Oil Co., Esperson Bldg., Houston, drilling, casing, developing deep test natural gas well, Hall gas field, Starr Co.

Tex., Alfred—OIL WELL—H. F. Wilcox Oil & Gas Co., Edna, drilling, developing new 5,000 ft. test oil well. $25,000.

Tex., Alice—OIL WELL, etc.—Butcher-Arthur, Inc., et al, 300 Bway., Houston, drilling, developing 7,000 ft. test oil well, ground storage, fuel line. Over $25,000.

Tex., Anahuac—OIL WELL—G. Lombardo, R. J. Ursillo, et al, drilling, casing, developing new 6,000 ft. test oil well. Over $25,000.

Tex., Beeville—OIL WELL—Midstates Oil Corp., Esperson Bldg., Houston, drilling, developing new 6,600 ft. test oil well. Over $25,000.

Tex., Blue Ridge—OIL WELLS—Phillips Petroleum Co., Esperson Bldg., Houston, drilling, casing, developing 3 new test oil wells, approx. 4,500 ft. each. Over $25,000.

Tex., Buckeye—OIL WELL, etc.—United North & South Development Co., Sterling Bldg., Houston, drilling, casing, developing new 8,500 ft. test oil well, ground storage, etc. Over $25,000.

Tex., Caddo—OIL WELL—Texas Pacific Coal & Oil Co., Abilene, drilling, developing new 3,170 ft. test oil well, storage, etc.

Tex., Calallen—OIL WELL, etc.—C. P. Burton, Continental Bldg., Dallas, drilling, developing 7,300 ft. test oil well, earthen storage, etc. Over $25,000.

Tex., Calliham—OIL WELL—Edw. M. Jones, et al, Tilden, drilling, developing new deep test oil well, storage.

Tex., Carthage—NATURAL GAS WELL—Rogers Lacy, Longview, drilling, casing, developing new 6,000 ft. test natural gas well, water and gas fuel lines, earthen storage, etc. Over $25,000.

Tex., Coleman—OIL WELL—Brannon & Murray, drilling, casing, developing 3,300 ft. test oil well. $25,000.

Tex., Crosbyton—OIL WELL—Forrest Development Co., drilling, developing new deep test oil well. $25,000.

Tex., Cuero—OIL WELL, etc.—Barnsdall Oil Co., Esperson Bldg., Houston, drilling, developing 7,500 ft. test oil well, ground storage. Over $25,000.

Tex., Cuero—OIL WELL—Superior Oil Co. of California, Oil & Gas Bldg., Houston, drilling, casing, developing new 8,000 ft. test oil well. Over $25,000.

★**Tex., Dallas**—AIRPORT IMPROVEMENTS—V. R. Smitham, city mgr., City Hall, bond election Dec. 28, airport imprvs. $500,000. Tentative date. CD 9/9—ENR 9/16.

Tex., Fowlerton—OIL WELL—Windsor Oil Co., National Standard Bldg., Houston, drilling, casing, developing new 5,500 ft. test oil well. Over $25,000.

Tex., Francitas—OIL WELL—W. L. Pickens, et al, Edna, drilling, developing 6,000 ft. test oil well, ground storage. Over $25,000.

Tex., Gillette—OIL WELL—Ce-Beth Oil Co., Karnes City, drilling, casing, developing new deep test oil well. $25,000.

Tex., Goliad—OIL WELL—Continental Oil Co., Oil & Gas Bldg., Houston, drilling, developing new 9,000 ft. test oil well. $40,000.

Tex., Goliad—OIL WELL, etc.—R. Ranger, drilling, casing, developing 5,000 ft. test oil well, earthern storage, etc. $25,000.

Tex., High Island—OIL WELL, etc.—Texas Co., 7200 San Jacinto St., Houston, drilling, casing, developing new 9,000 ft. test oil well, ground storage, fuel line. Over $25,000.

Tex., LaWard — OIL WELL — Hewitt & Dougherty, et al, Victoria, drilling, developing new test oil well, earthern storage, fuel line. Over $25,000.

Tex., LaWard—OIL WELL—Seaport Oil Corp., State National Bank Bldg., Houston, drilling, developing new deep test oil well. $25,000.

Tex., Levelland—STORAGE TANKS—Stanolind Pipe Line Co., Fair Bldg., Fort Worth, steel storage tanks to supply new pipe line to be built at Drumwright, Okla. $200,000.

Tex., Linn—OIL WELL—Sun Oil Co., Esperson Bldg., Houston, drilling, casing, developing deep test oil well, earthen storage, etc. $25,000.

Tex., Lochridge—OIL WELL, etc.—Grubbs & Hawkins, Esperson Bldg., Houston, drilling, developing oil well, earthen storage, etc. $25,000.

Tex., Lockhart—OIL OR GAS WELL—Lockhart & Davenport, Milam Bldg., San Antonio, drilling, casing, developing 2 deep test oil or gas wells. Over $25,000.

Tex., Lovelady—OIL WELL—C. B. Culmore, et al, drilling, developing new 3,250 ft. test oil well.

Tex., New Ulm—OIL WELL, etc.—Sinclair Prairie Oil Co., Gulf Bldg., Houston, drilling, casing, developing new 9,500 ft. test oil well, ground storage, etc. Over $25,000.

Tex., Odom—OIL WELL—Texas Conservative Oil Co. & Associates, Corpus Christi, drilling, developing 7,200 ft. test oil well. Over $25,000.

UNCLASSIFIED (Proposed Work, Cont'd.)

Tex., Port Isabel—OIL WELL, etc.—Loffland Bros., et al, Oil & Gas Bldg., Houston, drilling, casing, developing new 11,000 ft. test oil well, construct 4 mi. road, fuel line, earthen storage, etc. $75,000.

Tex., Randado—OIL WELL—M. L. Massingill and W. H. Spice, Jr., 342 W. Woodlawn, San Antonio, drilling, developing new deep test oil well. Over $25,000.

Tex., Realitos—OIL WELL—Ventura Petroleum Co., Corpus Christi, drilling, developing 5,000 ft. test oil well.

Tex., Rock Island—OIL WELL—Sinclair Prairie Oil Co., Gulf Bldg., Houston, drilling, developing new 10,000 ft. test oil well, earthern storage, fuel lines, etc. Over $25,000.

Tex., Roma—OIL WELL—H. & G. Brown and J. C. Karcher, Rio Grande City, drilling, developing new 5,000 ft. test oil well. $25,000.

Tex., Rotan—OIL WELL, etc.—Northern Ordnance, Inc., Fort Worth, drilling, casing, developing new 6,500 ft. test oil well, earthen storage, fuel line, etc. Over $25,000.

Tex., Salem—OIL WELL—Rowan & Hope Co., Commerce Bldg., Houston, drilling, developing new 4,500 ft. test oil well.

Tex., Sandia—OIL WELL—Bay-Tex Oil Co., 1201 McKinney, Houston, drilling, casing, developing new 6,300 ft. deep test oil well. $25,000.

Tex., Victoria—OIL WELL, etc.—J & C Drilling Co., Inc., Victoria, drilling, developing 6,100 ft. test oil well, earthen storage, fuel line. Over $25,000.

Tex., Westhoff—OIL WELL—South Basin Oil Co., Rep. Bank Bldg., Dallas, drilling, casing, developing new 4,000 ft. test oil well, 5 mi. west of here, earthen storage.

Tex., Windthorst—OIL WELL, etc.—Continental Oil Co., Eagle Ford Bldg., Dallas, and R. Olsen, et al., drilling, casing, developing 6,300 ft. test oil well, earthen storage. Over $25,000.

Wis., Oshkosh—AIRPORT—Winnebago Co., Oshkosh, A. E. Hedke, clk., imprv. airport. $100,000. A. E. McMahon Eng. Co., Menasha, engr.

BIDS ASKED

Bids Asked December 1

Delaware—GROIN—State Hy. Dpt., F. V. duPont, chn., Dover, Contr. $40, one 250 ft. steel groin, Rehoboth Beach, and Contr. 841, one 250 ft. steel groin, Bethany Beach, both Sussex Co. Plans deposit $2. W. W. Mack, ch. engr.; adv. ENR 11/11.

Bids Asked

†Maine—CONCRETE STRUCTURE—U. S. Eng., 31 St. James Ave., Boston, Mass., (selected list bidders), concrete structure, No. 19-023-44-Neg 107. $5,000.

†Massachusetts — DISTRIBUTION SYSTEM —U. S. Eng., 819 Industrial Trust Bldg., Providence, R. I., (selected list bidders), distr. sys., No. 44/56, Hampden Co.

†Tex., College Station—AIRPORT APRON—Civil Aeronautics Admin., P. O. Box 1689, Fort Worth, airport apron, incl. 700 cu. yd. excav., 200 lin. ft. 3 in. duct, 3,453 sq. yd. paving. Plans deposit $20.

LOW BIDDERS

†Colorado—IMPROVEMENTS—U. S. Eng., 909 17 St., Denver, Oct. 29, imprvs., night lighting sys., El Paso Co., from Collier Electric Co., 1326 Larimer St., Denver, **$80,000.**

†Colorado—IMPROVEMENTS—U. S. Eng., 909 17 St., Denver, Oct. 29, imprvs., night lighting sys., Pueblo Co., from Peter Kiewit Sons Co., 1099 S. Logan St., Denver, **$90,000.**

†Nevada—IMPROVEMENTS—U. S. Eng., 1209 8 St., Sacramento, 8, Calif., Oct. 29, imprvs., Spec. 713, Washoe Co., from Westbrook & Bing, 212 13 St., Sacramento, Calif., under **$200,000.** Bids 10/29.

★ **†Ohio** — IMPROVEMENTS — U. S. Eng., Wright Field, imprvs., Montgomery Co., from Corbetta Const. Co., 220 E. 42 St., New York, N. Y., **$1,700,000.**

†Texas—IMPROVEMENTS—U. S. Eng., Fort Sam Houston, Oct. 26, imprvs., Spec. 987, Bexar Co., from R. W. Briggs & Co., and M. B. Killian, Sunset Rd., San Antonio, approx. **$460,000.**

★ **†Texas**—IMPROVEMENTS—U. S. Eng., 231 W. Main St., Denison, imprvs., grading, Dallas Co., from Peter Kiewit Sons Co., McDougal Constr. Co., and Western Contracting Co., Sioux City, Ia., under **$2,000,000.** CD 11/1—ENR 11/4.

†Tex., Longview—AIRPORT—Civil Aeronautics Admin., P. O. Box 1689, Fort Worth, Nov. 5, airport imprvs., Prop. 444-654, Schedule 1, from Cook Constr. Co., Jackson, Miss., **$333,815.** CD 10/26—ENR 10/28.

CONTRACTS AWARDED

†Alabama — RUNWAY and TAXIWAY DRAINAGE—U. S. Eng., Grant St. west of Westwood St., Mobile, runway and taxiway drainage, Contr. 569-Eng-5457, Jefferson Co., to H. N. Donahoo, 517 N. 22 St., Birmingham, **$50,000.**

†Alabama—WASTE CUTTING OIL DISPOSAL SYSTEM—U. S. Eng., Grant St., west of Westwood St., Mobile, waste cutting oil disposal sys., Inv. 569-43-157, Etowah Co., to Atwood Constr. Co., 41 Exc. Place, Atlanta, Ga. Est. **$40,000.**

†Arizona—FACILITIES—U. S. Eng., 751 S. Figueroa St., Los Angeles, 14, Calif., facilities, Contr. 04-353-Eng-10, Maricopa Co., to King & McKee Constr. Co., 2880 El Cajon Bl., San Diego, Calif., **$100,000.**

†California—DOCK—U. S. Maritime Comn., Financial Center Bldg., Oakland, fitting-out dock exten., Yard 4, Contra Costa Co. to Duncanson-Harrelson Co., 1404 DeYoung Bldg., San Francisco. Bids 9/17.

†California—FINGER PIERS—U. S. Maritime Comn., Financial Center Bldg., Oakland, fitting-out finger piers, Yard 2, Contra Costa Co., to Salih Bros., 988 Market St., San Francisco. CD 10/11—ENR 10/14.

★ **†California** — SHIPYARD BUILDING — H. J. Kaiser Co., c/o Engineering Dpt., Richmond Shipyard 4, 500x500 ft., steel frame assembly bldg., to Carl N. Swenson Co., 355 Stockton Ave., San Jose. Bids 10/4. CD 10/12—ENR 10/14.

†Calif., Vernalis—AIR STATION IMPROVEMENTS—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., addnl. imprvs., Auxiliary Air Station, NOY 6870, to Union Paving Co., 624 Call Bldg., San Francisco, **$241,800.**

†Delaware—FACILITIES—U. S. Eng., 6 and Walnut Sts., Phila., Pa., facilities, Contr. 36-109-Eng-106, New Castle Co., to F. H. Wilson, Ardmore, Pa. **$30,000.**

†Florida—HARDSTANDS—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, addnl. hardstands, Inv. Neg-Jax-44-302, Levy Co., to M. J. Carroll Contg. Co., Leesburg, approx. **$40,000.** Awarded 10/30.

†Florida—RAILROAD TRACK—U. S. Eng., Grant St. west of Westwood St., Mobile, Ala., railroad track, Contr. 569-Eng-5454, Bay Co., to Royce Kershaw & Co., Montgomery, Ala., **$50,000.**

†Florida—RANGES, etc.—U. S. Eng., 575 Riverside Ave., Jacksonville, Zone 2, ranges, temporary frame bldgs., paving, drainage, Contr. 08-128-Eng-87, Bradford Co., to B. B. McCormick & Sons, Inc., Graham Bldg., Jacksonville, **$400,000.**

Fla., Pensacola — POURING CONCRETE SLABS, GREASE RACKS, etc.—Pensacola Coach Corp., 22 S. Brue St., pouring concrete slabs, erecting grease racks, alterations, to Sims Constr. Co., Bayside Court, under **$25,000.**

†Georgia — IMPROVEMENTS — U. S. Eng., Grant St. west of Westwood St., Mobile, Ala., imprvs., Chattahoochee Co., to Ledbetter Erection Co., 4001 First Ave. N., Birmingham, Ala., about **$30,000.**

★ **†Georgia**—SPRINKLER SYSTEMS—U. S. Eng., Post Office Bldg., Savannah, sprinkler sys., Contr. 819-Eng-1683, Cobb Co., to Grinnell Co., Inc., 240 N. Highland Ave. N. E., Atlanta, **$800,000.**

†Georgia—TARGET BUTT and TAXIWAY—U. S. Eng., Post Office Bldg., Savannah, target butt and taxiway, Contr. 819-Eng-1679, McIntosh Co., to Wright Contr. Co., Columbus, **$30,000.**

†Georgia—TAXIWAY AND RAMPS—U. S. Eng., Post Office Bldg., Savannah, taxiway and ramps, Contr. 819-eng-1687, Chatham Co., to W. L. Cobb, Inc., Decatur, **$30,000.**

†Iowa—IMPROVEMENTS—U. S. Eng., 1709 Jackson St., Omaha, Neb., imprvs., electrical installations, Woodbury Co., to Clifton Engineering Co., Three Rivers, Mich., Est. under **$50,000.**

Ia., Waterloo—YARDS and SHOPS—Illinois Central R. R., C. H. Mottier, ch. engr., 135 E. 11 Pl., Chicago, Ill., imprv. yards and shops, to Zitterell-Mills Co., Webster City. Est. **$126,680.**

†Kansas—GRADING, etc.—U. S. Eng., 10 E. 17 St., Kansas City, Mo., grading, concrete culvert pipe, moving target track, constructing temporary frame bldgs., Contr. 23-028-Eng-138, Ellis Co., to L. F. Harper, Great Bend, **$30,000.**

†Kansas—IMPROVEMENTS—U. S. Eng., 10 E. 17 St., Kansas City, Mo., imprvs., Saline Co., to Johnson, Peterson, Busboom & Rauh, Salina. Est. **$25,000.**

†Kentucky—RAISING FLOOR, etc.—U. S. Eng., 612 Federal Bldg., Louisville, raising, repairing concrete floor and loading docks slabs, Contr. 15-029-Eng-88, Jefferson Co., to L. G. Arnold, Inc., Eau Claire, Wis., **$30,000.**

†Louisiana—FENCING—U. S. Eng., 300 Bway., Little Rock, Ark., fencing, Solic. No. 03-050-44-100, Rapides Parish, to E. Loupe, Montgomery, approx. **$31,000.**

†Louisiana — LIGHTING SYSTEM — U. S. Eng., 300 Bway., Little Rock, Ark., night lighting sys., Bossier Co., to T. B. Merrill, Winnsboro, **$26,000.**

†Maryland—SHIPYARD BUILDING—Bethlehem Fairfield Shipyards, 1201 Key Highway, Baltimore, 2 story, 42x112 ft., brick, outside machinists bldg., to Cummins Constr. Corp., 803 Cathedral St., Baltimore. Federally financed. CD 11/1—ENR 11/4.

†Md., Bethesda — FIRE PROTECTION MEASURES—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., fire protection measures, Natl. Medical Center, NOY 6941, to F. H. Martell, 920 17 St., Wash., D. C., **$34,700.**

★ **†Massachusetts**—CONSTRUCTION — U. S. Eng., 31 St. James Ave., Boston, construction at military installation, Middlesex Co., to Rugo Constr. Co. Inc., 80 Boylston St., Boston, over **$1,700,000.** CD 10/12—ENR 10/14, under Public Bldgs., LB.

†Michigan — LIGHTING SYSTEM — U. Eng., 700 Union Guardian Bldg., Det Zone 31, underground work and laying c for night lighting sys., Wayne Co., to J. Frost, 234 Piquette St., Detroit.

†Nebraska — ELECTRICAL INSTAL TIONS—U. S. Eng., 1709 Jackson St., Oma Electrical installations, Brown Co., to Cr ford Electric Co., North Platte. Est. un **$50,000.**

†Nebraska—IMPROVEMENTS—U. S. E 1709 Jackson St., Omaha, imprvs., electr installations, Box Butte Co., to Crawf Electrical Co., North Platte. Est. un **$50,000.**

†Nebraska—IMPROVEMENTS—U. S. E 1709 Jackson St., Omaha, Neb., impr electrical installations, Buffalo Co., to F man Contractors, Inc., Colorado Springs, C Est. under **$50,000.**

†Nebraska—IMPROVEMENTS—U. S. E 1709 Jackson St., Omaha, imprvs., electr installations, Clay Co., to Flynn & Schu 209 S. Main St., Council Bluffs, Ia. Est. un **$50,000.**

†Nebraska—IMPROVEMENTS—U. S. E 1709 Jackson St., Omaha, imprvs., electr installations, Fillmore Co., to Freeman C tractors, Inc., Colorado Springs, Colo. E under **$50,000.**

†Nebraska—IMPROVEMENTS—U. S. E 1709 Jackson St., Omaha, imprvs., electr installations, Hall Co., to Freeman Contra ors, Inc., Colorado Springs, Colo. Est. un **$50,000.**

†Nebraska—IMPROVEMENTS—U. S. E 1709 Jackson St., Omaha, imprvs., electr installations, Lancaster Co., to Roberts Con Co., 1018 Terminal Bldg., Lincoln. Est. un **$50,000.**

†Nebraska—IMPROVEMENTS—U. S. E 1709 Jackson St., Omaha, imprvs., pu house and pipelines, Red Willow Co., to G eral Contracting Co., 2310 Leeland St., Ho ton, Tex. Est. under **$50,000.**

†Nebraska—IMPROVEMENTS—U. S. E 1709 Jackson St., Omaha, imprvs., electr installations, Thayer Co., to Freeman C tractors, Inc., Colorado Springs, Colo. E under **$50,000.**

†Nebraska—RANGE—U. S. Eng., 1709 Ja son St., Omaha, range, Contr. 25-066-Eng- Hall Co., to Peter Kiewit Son's Co., Oma Natl. Bank Bldg., Omaha. **$30,000.**

†Nebraska—WEATHERPROOFING BUIL INGS—U. S. Eng., 1709 Jackson St., Omal weatherproofing bldgs., Buffalo Co., to B sell Weatherproofing Co., Kearney. Est. der **$50,000.**

†New Jersey—CLEARING—U. S. Eng., and Walnut Sts., Phila., Pa., addnl. cleari Contr. 36-109-Eng-113, Cape May Co., to G. Whitmyer, Hammonton, **$30,000.**

†New Jersey — HEATING SYSTEM — U. Eng., 120 Wall St., New York, 5, N. Y., co structing, installing heating sys. for bld Essex Co., to Hansen-Jensen, Inc., 427 N. Bro St., Elizabeth, **$125,000.**

★ **†New Jersey** — IMPROVEMENTS — U. Eng., 120 Wall St., New York, 5, N. imprvs., Essex Co., to Industrial Enginee 50 Church St., New York, N. Y., **$700,000.**

†New Jersey—TRAINING AIDS—U. S. En 120 Wall St., New York, 5, N. Y., traini aids, Contr. 30-075-Eng-210, Middlesex Co., Chas. Christenson & Son, Inc., 921 Berg Ave., Jersey City, **$40,000.**

N. J., Bayonne—CRANE RUNWAY—Ea Coast Shipyard, foot of 21 St., structural st crane runway. Owner builds. $50,000 more.

†New Mexico—HAZARD REMOVAL—U. Eng., Albuquerque, removing hazards, Con 29-005-eng-91, Luna Co., to Brown Bros., buquerque, **$100,000.**

†New Mexico—NIGHT LIGHTING SYST —U. S. Eng., Albuquerque, installing nig lighting sys., Curry Co., to J. E. Jones Sandia Rd., Albuquerque, under $100, Awarded 11/3.

†New York—FACILITIES—U. S. En Chimes Bldg., Syracuse, addnl. faciliti Contr. 321-Eng-1072, New York Co., to Jo W. Cowper Co., Inc., Sidway Bldg., Buffa **$300,000.**

†New York — FACILITIES — U. S. En Chimes Bldg., Syracuse, facilities, Contr. 3 eng-1078, Oneida Co., to John J. Harvey C 2242 Whitesboro St., Utica, **$40,000.**

†North Carolina—DRILL GROUND E PANSION—U. S. Eng., 308 Customhouse, W mington, expanding drill grounds, clearin grubbing, grading, drainage, Iden. 982-44- Onslow Co., to Lambeth & Hester, Green boro, under **$100,000.** Bids 9/10.

†North Carolina—STORAGE FACILITIES Yards & Docks, Navy Dpt., 18 St. and Co stitution Ave. N.W., Wash., D. C., stora facilities, Spec. 11571, NOY 6656, to W Muirhead Constr. Co., Durham, $120,845.

†N. C., Edenton—SWIMMING POOL—Ya & Docks, Navy Dpt., 18 St. and Constituti Ave. N.W., Wash., D. C., swimming po M C A S, NOY 6835, to V. P. Loftis C Builders Bldg., Charlotte, **$215,200.**

★ **†N. C., Washington**—AIRPORT PAVING Civil Aeronautics Admin., 80-86 Mariet St., Atlanta, Ga., airport, Warren Field, pa ing, to DuBois Const. Corp., 285 5 Ave., N York, N. Y. To exceed **$1,000,000.** CD 9/2 ENR 9/23, under CA.

LASSIFIED (Contracts Awarded, Cont'd.)

hio — INTERIOR ELECTRICAL WORK, —U. S. Eng., Chesapeake & Ohio Bldg., ington, W. Va., interior electrical work constructing electrical distr. sys., Contr. 2-eng-31, Richland Co., to Diamond S. Co., Inc., Sandusky, **$30,000.**

klahoma—FACILITIES—U. S. Eng., 416 ht Bldg., Tulsa, Zone 2, war facilities, ng, sanitary sewer lines, water lines, Sol. 34-006-44-5, Kay Co., to H. C. & Sons Constr. Co., Enid, **$129,000.**

klahoma—FACILITIES—U. S. Eng., 415 ht Bldg., Tulsa, Zone 2, facilities, sani- sewer lines, water lines, grading, bldgs., Sol. No. 34-006-55-5, Muskogee Co., to attan Constr. Co., Manhattan Bldg., Mus- , Lot No. 2, **$79,000.**

klahoma — FUELING SYSTEM — U. S. 416 Wright Bldg., Tulsa, Zone 2, fuel- ys. addns., expansion, Sol. 34-006-44-3, Co., to Natkin & Co., 1800 Baltimore Kansas City, Mo., **$36,600.** CD 10/20— 10/28.

klahoma — FUELING SYSTEM — U. S. 416 Wright Bldg., Tulsa, Zone 2, fuel- ys. expansion, imprvs., Sol. 34-006-44-3, ogee Co., to Natkin & Co., 1800 Balti- St., Kansas City, Mo., **$31,000.** CD —ENR 10/28.

klahoma—IMPROVEMENTS—U. S. Eng., Wright Bldg., Tulsa, Zone 2, imprvs., bldgs., facilities, "G", Sol. No. 34-966- Oklahoma Co., to Tankersley Constr. Cotton Exchange Bldg., Oklahoma City, 00. CD 10/22—ENR 10/28.

klahoma—IMPROVEMENTS—U. S. Eng., Wright Bldg., Tulsa, Zone 2, imprvs., 957-Neg-44-88, Oklahoma Co., to Secor ing Co., Inc., 3300 N.W. 24 St., Okla- City, **$33,340.**

klahoma—TURFING—U. S. Eng., 416 ht Bldg., Tulsa, Zone 2, turfing, Gar- Co., to R. K. Lawson, Yukon. Est. un- **50,000.**

ennsylvania—FIRE PROTECTION SYS- etc.—U. S. Eng., Standard Bank Bldg., more, Md., fire protection sys., utilities, . 18-020-Eng-38, Dauphin Co., to Ritter 1511 N. Cameron St., Harrisburg, 00.

I., **Quonset Point**—PARKING AREA, -Yards & Docks, Navy Dpt., 18 St. and titution Ave. N.W., Wash., D. C., addnl. ing area and taxiway for Charlestown Westerly NAS, Quonset Point, NOY 7529, mpanella & Cartli Constr. Co., 86 Wey- t St., Providence, **$115,900.**

uth Dakota—IMPROVEMENTS—U. S. 1709 Jackson St., Omaha, Neb., imprvs., es Co., to Gray Constr. Co., Watertown, r **$50,000.**

uth Dakota—IMPROVEMENTS—U. S. 1709 Jackson St., Omaha, imprvs., Pen- on Co., to H. H. Hackett, Rapid City, r **$50,000.**

uth Dakota—IMPROVEMENTS—U. S. 1709 Jackson St., Omaha, Neb., imprvs., rical installations, Pennington Co., to ta Elec. Supply Co., Fargo, N. D. Est. r **$50,000.**

exas and West Virginia—NATURAL GAS IPELINE PIPE—Tennessee Gas & Trans- on Co., Esperson Bldg., Houston, fur- ng approx. 900 mi. 24 in. steel pipe for al gas pipeline between Corpus Christi, and Cornwell, W. Va., to A. O. Smith 2533 N. 27 St., Milwaukee, Wis., approx. ,000. CD 10/27—ENR 11/4.

exas—FACILITIES—U. S. Eng., 416 ht Bldg., Tulsa, 2, Okla., facilities, grad- sanitary sewers, water lines, bldgs., etc., , Sol. 34-006-44-5, Gray Co., to Johnson, s & Kraft, 202 Hightower Bd., Okla- City, Okla., approx. **$105,000.**

exas — IMPROVEMENTS — U. S. Eng., Sam Houston, imprvs., bldgs., Medina to E. H. Conrad, 207 Bldg. Exchange, Antonio, approx. **$25,000.** Bids 11/1.

exas — IMPROVEMENTS — U. S. Eng., . Main St., Denison, imprvs., furnishing, lling heavy doors, storage, etc., Tarrant to Byrne Doors, Inc., 1150 Griswold St., oit, Mich., approx. **$100,000.**

exas—IMPROVEMENTS—U. S. Eng., Al- erque, N. M., imprvs., bldgs., Ward Co., uggs Constr. Co., Big Spring, approx. 0.

as — OIL WELL — Forest Development E. F. Vogel, Praetorian Bldg., Dallas, ng (only) 4,000 ft. test oil well, Yellow- Canyon area, Crosby Co., to Geo. Calla- Abilene, **$33,500.**

exas—RANGES, etc.—U. S. Eng., 25 St. Avenue F, Galveston, firearms practice s, roads, fencing, Sol. 41-243-44-C56, ston Co., to Tellepsen Constr. Co., 3900 St., Houston, approx. **$25,000.**

exas—TAXIWAY—U. S. Eng., Albuquer- N. W., taxiway imprvs., Contr. 29-005- 90, Ward Co., to Uvalde Constr. Co., Fe Bldg., Dallas, **$50,000.**

., **Laredo**—OIL WELL—Adams Oil & Co., Esperson Bldg., Houston, drilling, . developing 7,500 ft. test oil well, en storage, etc., to A. Buchanan, Milam , San Antonio, **$40,000.**

rginia—PARKING APRON—U. S. Eng., Norfolk, Norfolk, parking apron, Contr. 0-Eng-2732, Henrico Co., to Garrett & Davis Rd., Richmond, **$30,000.**

ashington—GASOLINE STORAGE SYS- —U. S. Eng., 800 3 Ave., Seattle, 4, gasoline storage sys., Kittitas Co., to Gaasland Constr. Co., 1161 Ellis St., Bellingham, **$60,000.**

†**Washington**—RANGE—U. S. Eng., 800 3 Ave., Seattle, Zone 4, range, Contr. 45-108-Eng-260, Grant Co., to M. E. Nelson Constr. Co., Inc., Ephrata, **$40,000.**

†**Wyoming**—IMPROVEMENTS—U. S. Eng., 909 17 St., Denver, Colo., imprvs., night lighting sys., Natrona Co., to Peter Kiewit Sons Co., 1099 S. Logan St., Denver, Colo., **$95,000.** CD 10/8—ENR 10/14.

†**Wyoming**—RANGE—U. S. Eng., 909 17 St., Denver, Colo., range, Contr. No. 05-016-Eng-77, Natrona Co., to Peter Kiewit Son's Co., 1024 Omaha Natl. Bank Bldg., Omaha, Neb., and Big Horn Constr. Co., Cheyenne. **$40,000.**

★**British Columbia** — IMPROVEMENTS — Dpt. Transport, Ottawa, Ont., imprvs., grading, smoothing, rolling, drainage, etc., to Dawson Wade & Co., Ltd., 775 Clarke St., Vancouver, about **$530,000.** Bids 9/30. CD 9/22.

Man., The Pas—IMPROVEMENTS—Dpt. Transport, Ottawa, Ont., imprvs., clearing, stumping, grubbing, graveling, bldgs., etc., to Tomlinson Constr. Co., Ltd., 21 King St. E., Toronto, Ont., about **$465,000.**

Que., Cartierville — AIRPORT DEVELOPMENT—Dpt. Transport, Ottawa, Ont., addnl. airport development, clearing, stumping, grading, smoothing, rolling, drainage and concrete aprons, etc., to Raymond-McDonell & Co., Ltd., 2020 Union St., Montreal, about **$400,000.**

Que., Chicoutimi—IMPROVEMENTS—Dpt. Transport, Ottawa, Ont., imprvs., incl. rading, smoothing, rolling, parking area and taxi strip, etc., to Highway Paving Co., Ltd., Montreal, about **$85,000.** CD 9/23—ENR 9/30.

Que., Dorval (Montreal)—IMPROVEMENTS —Dpt. Munitions & Supply, Ottawa, Ont., imprvs., to J. A. A. Leclair-Dupuis, Ltd., 620 Cathcart St., Montreal, **$50,000.**

Que., Montreal—STORAGE DAM CRIBWORK—Saguenay Power Co. Ltd., Sun Life Bldg., storage dam cribwork, day labor. **$90,000.**

LATIN AMERICA

Mexico—International Harvester Co., 180 N. Michigan St., Chicago, Ill., U. S. A., plans truck building foundry and factory, Saltillo, state of Coahuila.

Mexico—Mexican Government, Ministry of National Defense, Mexico City, President Manuel Avila Camacho, ordered army engineering corps to draft plans and a cost budget for a military city at Mazatlan, state of Sinaloa, (key Pacific Port).

Mexico—National Social Insurance Institute, Ave. 16 de Septiembre, 3, Mexico City, plans building 5 large public general hospitals, Mexico City. $5,000,000.

Mexico—State of Mexico, Government Palace, Toluca, plans powerful irrigation dam to hold several million liters of water for irrigation Tlalnepantla Valley dist., dam site at Madin. $750,000 (tentative). J. Aguiluz Luna, Madin, engr.

Mexico—State of Mexico, Isidrio Fabela, governor, Government Palace, Toluca, will construct new highways, repairing old ones, etc., own forces. **$1,200,000.**

Mexico—State Mexico Government, Palacio del Estado, Toluca, authorizes bond issue to finance road building and reconstruction, various cities. $1,260,000.

Mexico—State of Nuevo Leon, Arturo B. de la Garza, governor, Monterrey, plans new water sys., also some drainage and irrigation work for Villa de Guadalupe. $100,000.

PUBLIC BUILDINGS

PROPOSED WORK

†**Ala., Mobile**—Pub. Housing Auth., NHA, Georgia Savings Bank Bldg., Peachtree and Broad Sts., Atlanta, Ga., plans by W. H. March, P. O. Box 813, 409 dormitory units.

Ark., Little Rock—State, plans by Theo. M. Sanders, Hall Bldg., confederate veterans home, $150,000.

★†**California** and **Michigan**—Douglas Aircraft Co., Inc., 3000 Ocean Park Blvd., Santa Monica, Calif., addnl. plant facilities. Approx. $3,500,000. Defense Plant Corp. will finance.

†**California** — Consolidated Vultee Aircraft Corp., Pacific Hy., San Diego, addnl. plant facilities. Approx. $450,000. Defense Plant Corp. will finance.

†**California**—The Lockheed Aircraft Corp., Burbank, addnl. plant facilities. Approx. $70,000. Defense Plant Corp. will finance.

†**California**—U. S. Eng., 74 New Montgomery St., San Francisco, bldgs., Spec. 1118, 1152 and 1172, San Francisco Co.

†**California**—Weber Showcase & Fixture Co., Inc., 5700 Avalon Bl., Los Angeles, plant facilities. Approx. $450,000. Defense Plant Corp. will finance.

†**Calif., Alameda-Oakland** — Pub. Housing Auth., NHA, 785 Market St., San Francisco, utilities for 25 family trailers, Calif. 4795.

†**Calif., Berkeley**—Home Owners' Loan Corp., 1440 Bway., Oakland, Zone 12, plans by Reynolds & Chamberlain, 564 Market St., San Francisco, converting bldg. at 2425 Durant Ave. into living units, Case No. W4B-900. Over $5,000.

†**Calif., Berkeley**—Home Owners' Loan Corp., 1440 Bway., Oakland, Zone 12, plans by Reynolds & Chamberlain, 564 Market St., San Francisco, converting bldg. at 1329 Henry St., into living units, Case No. W4B-1131. Over $5,000.

†**Calif., Blythe**—Pub. Housing Auth., NHA, 785 Market St., San Francisco, plans by G. Stanley Wilson, 3681 6 St., Riverside, 160 family dwelling units, Calif. 4779. CD 11/1—ENR 11/4.

†**Calif., Herlong**—Pub. Housing Auth., NHA, 785 Market St., San Francisco, plans by Wm. P. Day & Associates, Financial Center Bldg., San Francisco, 300 family dwelling units, Calif. 4794. CD 11/1—ENR 11/4.

†**Calif., Hunters Point (San Francisco Area)** —Home Owners' Loan Corp., Pacific Bldg., San Francisco, 500 family unit conversion program.

†**Calif., Lancaster**—Pub. Housing Auth., NHA, 785 Market St., San Francisco, plans by M. Lyndon, 921 Westwood Blvd., Los Angeles, 40 family dwelling units, Calif. 4775. CD 10/14—ENR 10/21.

†**Calif., Mountain View**—Home Owners' Loan Corp., 821 Market St., San Francisco, plans by D. E. Jaekle & W. S. Gibson, Assoc., Hearst Bldg., San Francisco, converting Mt. View Hospital on El Camino Real to 10 living units, Case No. W4E-10. $20,000.

†**Calif., Oakland**—Home Owners' Loan Corp., 1440 Bway., Zone 12, plans by M. A. Sheldon, 681 Market St., San Francisco, converting flats at 3522 Brookdale Ave. into 4 living units, Case No. W4B-1063. $8,000.

†**Calif., Oakland**—Home Owners' Loan Corp., 1440 Bway., Oakland, Zone 12, plans by A. A. Cantin, 704 Market St., San Francisco, converting theatre bldg. at 1662 46 Ave. into approx. 30 living units, Case W4B-1260. $60,000.

†**Calif., Oakland**—Home Owners' Loan Corp., 1440 Bway., Oakland, Zone 12, plans by A. Lewis Koue, 525 Market St., San Francisco, converting residence at 290 Park View Terrace into 9 living units, Case No. W4B-1102. $18,000.

†**Calif., Oakland**—Home Owners' Loan Corp., 1440 Bway., Zone 12, plans by A. Lewis Koue, 525 Market St., San Francisco, converting bldg. at 838 19 St., into living units, Case No. W4B-1232. Over $5,000.

†**Calif., Oakland**—Home Owners' Loan Corp., 1440 Bway., Zone 12, plans by H. T. Johnson, 4716 Reinhardt Dr., Oakland, converting flats at 32 Monte Vista Ave., into 4 living units, Case No. W4B-1120. $8,000.

†**Calif., Oakland**—Home Owners' Loan Corp., 1440 Bway., Zone 12, plans by Reynolds & Chamberlain, 564 Market St., San Francisco, converting bldg. at 1727 12 St., into living units, Case No. W4B-1172. Over $5,000.

†**Calif., Oakland**—Home Owners' Loan Corp., 1440 Bway., Zone 12, plans by Reynolds & Chamberlain, 564 Market St., San Francisco, converting bldg. at 327 Hanover St., into living units, Case No. W4B-1196. Over $5,000.

†**Calif., Oakland**—Home Owners' Loan Corp., 1440 Bway., Zone 12, plans by A. Lewis Koue, 525 Market St., San Francisco, converting bldg. at 842 19 St., into living units, Case No. W4B-1233. Over $5,000.

†**Calif., Oxnard**—Pub. Housing Auth., NHA, 785 Market St., San Francisco, plans by Soule & Murphy, 116 E. Sola St., Santa Barbara, utilities for 50 unit trailer park, Calif. 4776. CD 10/20—ENR 10/28.

†**Calif., San Diego**—Pub. Housing Auth., NHA, 785 Market St., San Francisco, 600 family dwelling units, Calif. 4797, and 300 family dwelling units, Calif. 4798.

†**Calif., San Bernardino**—Pub. Housing Auth., NHA, 785 Market St., San Francisco, plans by J. Dewey Harnish, 212 B St., Ontario, 100 family dwelling units, Calif. 4769. CD 11/1—ENR 11/4.

†**Calif., Stockton**—Home Owners' Loan Corp., 1441 Bway., Oakland, Zone 12, plans by V. Buckley, 155 Sansome St., San Francisco, converting bldg. at 33 South Hunter St., into living units, Case No. W4G-133. Over $5,000.

†**Calif., Trona**—Pub. Housing Auth., NHA, 785 Market St., San Francisco, plans by J. Dewey Harnish, 212 B St., Ontario, 100 family dwelling units, Calif. 5793. CD 11/1—ENR 11/4.

†**Colorado**—U. S. Eng., 909 17 St., Denver, bldg., Denver Co., $50,000 or more.

†**Connecticut**—Chance Vought Div. United Aircraft Corp., 550 Main St., Stratford, engine testing house, scrap metal unit and fire station. Over $40,000. Federally financed. Albert Kahn Associated Architects & Engineers, Inc., 345 New Center Bldg., Detroit, Mich., engrs.

†**Conn., East Hartford**—Pub. Housing Auth., NHA, 24 School St., Boston, grading, sidewalks, housing, Conn. 6124.

†**Conn., Hartford**—Pub. Housing Auth., NHA, 24 School St., Boston, Mass., alterations, Type C Bldgs., housing, Conn. 6128, 6129, 6131, 6132 and 6133.

†**Conn., New Britain**—City, Dr. L. J. Dumont, 27 W. Main St., brick, steel isolation hospital. $150,000. **FWA.**

PUBLIC BLDGS. (Proposed Work Cont'd.)

†Conn., Waterbury—Pub. Housing Auth., NHA, 24 School St., Boston, Mass., plans by Lindsay & Sorrenson, 211 State St., Bridgeport, housing, Conn. 6209.

†Fla., Jacksonville—Pub. Bldgs. Admin., 18 and F Sts. N.W., Wash., D. C., marine hospital, incl. nurses home, laundry, power house and garage facilities, etc. **FWA.**

†Fla., Tampa—Pub. Housing Auth., NHA, Georgia Savings Bank Bldg., Peachtree and Broad Sts., Atlanta, Ga., bids soon 500 family dwelling units, Fla. 3-4. M. Leo Elliot, Citizens Bldg., archt. CD 9/3—ENR 9/9.

†Georgia—National Cylinder Gas Co., 4700 W. 19 Cicero St., Chicago, Ill., addnl. plant facilities. $100,000. Defense Plant Corp. will finance.

†Ga., Columbus—Pub. Housing Auth., NHA, Georgia Savings Bank Bldg., Peachtree and Broad Sts., Atlanta, bids soon 80 family dwelling units, Ga. 4-4. J. W. Biggers and T. F. Lockwood, Murrah Bldg., archts. CD 8/20—ENR 8/26.

†Ga., Macon—Pub. Housing Auth., NHA, Georgia Savings Bank Bldg., Peachtree and Broad Sts., Atlanta, bids soon 252 dormitory units, Ga. 9166. E. Dunwoody, Macon, archt. CD 10/20—ENR 10/28.

★**†Indiana** — International Harvester Co., 180 N. Michigan St., Chicago, Ill., warehouse. $1,000,000. Federally financed.

†Ia., Cedar Rapids—Pub. Housing Auth., NHA, 201 N. Wells St., Chicago, Ill., 110 unit housing.

†Kan., Leavenworth—Home Owners' Loan Corp., Woodmen of the World Bldg., Omaha, Neb., 46 family unit conversion program.

†Ky., Morganfield—Pub. Housing Auth., NHA, 9 and Prospect Sts., Cleveland, O., plans by Wilson, Ball & Watkins, 145 E. High St., Lexington, 50 unit dormitory housing, Ky. 15104. CD 5/19—ENR 5/27.

†Louisiana—Standard Oil Co. of Louisiana, North Baton Rouge, addnl. facilities at plant. $125,000. Defense Plant Corp. will finance.

†Louisiana—U. S. Eng., 25 St. and Avenue F, Galveston, Tex., bldgs., facilities, Calcasieu Parish.

†Maryland—Federal Works Agency, 601 State Planters Bank Bldg., Richmond, 19, Va., plans by J. J. Baldwin, 927 15 St. N.W., Wash., D. C., school, St. Mary's Co., Md. 18-094. **$180,527.**

†Maryland—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., garage, Naval Model Basin, NOY 7460, Carderock.

†Maryland—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., plans by Whitman, Edmunds & White, engrs. and archts., 10 W. Chase St., Baltimore, housing for enlisted married personnel at Naval Air Sta., NOY 7784, and housing for married officers, NOY 7785; school house, NOY 7389; barracks and mess hall, NOY 7907, all foregoing at Patuxent River. CD 9/21.

†Maryland—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., barracks at N.R.L. Field Annex, NOY 7935, concrete storage tanks, NOY 7936, foregoing at Randle Cliff.

†Maryland—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., fire fighters school, NOY 7654; hospital exten., NOY 7878, both at Naval Training Station, Bainbridge.

†Md., Indian Head—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., addnl. facilities Naval Powder Factory, NOY 7905.

†Massachusetts—U. S. Eng., 819 Industrial Trust Bldg., Providence, R. I., plans by McClintock & Craig, Inc., 458 Bridge St., Springfield, bldg. units, Hampden Co.

†Mass., Holyoke—Pub. Housing Auth., NHA, 24 School St., Boston, grading, site clearing, etc., Mass. 19080.

†Mass., Springfield—Pub. Housing Auth., NHA, 24 School St., Boston, grading, site clearing, at housing, Mass. 19025.

†Mich., Battle Creek—Pub. Housing Auth., NHA, 2073 E. 9 St., Cleveland, O., community bldg., Mi. 20011.

Minn., Floodwood—Town, plans by F. H. Fitzgerald, 408 Providence Bldg., Duluth, hospital. $150,000.

†Missouri and Kansas—Home Owners' Loan Corp., Sterick Bldg., Memphis, Tenn., 400 family unit conversion program, Kansas City area, Mo. and Kans.

†Mo., Ft. Leonard Wood (br. St. Louis)—Pub. Housing Auth., NHA, Dierks Bldg., 1006 Grand Ave., Kansas City, Mo., 100 unit dwellings, near here.

Mo., Joplin—St. John's Hospital plans by Carroll & Dean, R. A. Long Bldg., Kansas City, Mo., hospital addn. $350,000. Applied for FWA funds.

†Neb., Bellevue—Pub. Housing Auth., NHA, Dierks Bldg., 1006 Grand Ave., Kansas City, Mo., trailer camp facilities, incl. parking space, electric, water and sewer connections, garbage, laundry and shower facilities. $6,750.

Neb., Columbus — City Council, housing, incl. trailer camps. $300,000. General Housing Committee, (appointed by City Council) preparing petition to file with FWA.

†Neb., Fairmont—Home Owners' Loan Corp., Woodmen of the World Bldg., Omaha, 20 family unit conversion program.

★**†New Jersey**—Alan Wood Steel Co., Conshohocken, Pa., addnl. facilities at plant. $875,000. Defense Plant Corp. will finance.

★**†New Jersey**—Wallington Tube Corp., Wallington, plant facilities. Approximately $1,900,000. Defense Plant Corp. will finance.

†N. J., Newark—Pub. Housing Auth., NHA, 270 Bway., New York, 7, N. Y., housing.

†N. J., Perth Amboy—Home Owners' Loan Corp., 2 Park Ave., New York, N. Y., 50 family unit conversion program.

N. Y., Kings Park—Comr. Mental Hygiene, State Office Bldg., Albany, indefinitely postponed bids to have been opened Oct. 27, steam service tunnels (completion), Spec. 11612. $105,000. CD 10/13—ENR 10/21. under BA.

★**†N. Y., Syracuse**—Syracuse Memorial Hospital, 736 Irving Ave., hospital addn., alterations, NY 30-256. $866,341. **FWA.** Eggers & Higgins, 5420—5 Ave., New York, archts. CD 5/25/42—ENR 5/28/42.

N. C., Marshall—French Broad Electric Membership Corp., Marshall, bids soon power plant on French Broad River, Proj. NC 46-G. Plans deposit $25. J. B. McCrary Eng. Corp., 22 Marietta St. Bl., Atlanta, Ga., engrs.

†N. C., Wilmington—Federal Works Agency, 601 State Planters Bank Bldg., Richmond, 19, Va., sketches by L. N. Boney, Wilmington, 2 school bldgs. one at east side Avery St., and other near intersection of Worth Dr. and Mitchell Sts., Docket NC 31-269, at Maffit Village, on sites owned by Fed. Pub. Housing Auth. $123,600.

†Ohio—General Electric Co., 1 River Rd., Schenectady, N. Y., addnl. plant facilities. $275,000. Defense Plant Corp. will finance.

†Ohio—National Aluminum Cylinder Head Co., 343 E. 93 St., Cleveland, addnl. facilities at plant. $340,000. Defense Plant Corp. will finance.

†Ohio—Transue & Williams Steel Forging Corp., Alliance, addnl. plant facilities. $200,000. Defense Plant Corp. will finance.

†Ohio—Wellman Bronze & Aluminum Co., H. G. Wellman, pres. and secy., 2525 E. 93 St., Cleveland, plans by F. Haushka, engr.-archt., Ninth and Chester Bldg., Cleveland, boiler house, coal storage and smoke stack. $77,000. Defense Plant Corp. will finance. CD 11/3.

★**O., Akron**—Bd. Educ., C. R. Faust, pres., City Hall, constructing, imprv. schools, $4,500,000.

O., Lima—Bd. Trustees Lima Memorial Hospital, hospital addn., remodeling, $315,000. J. F. Cupp, city engr. CD 9/7—ENR 9/9.

†O., Lima—Pub. Housing Auth., NHA, 2073 E. 9 St., Cleveland, plans by Triangle Associates, 4614 Prospect Ave., Cleveland, 40 unit temporary family dwellings, Ohio 33289.

†O., Lima—Pub. Housing Auth., NHA, 2073 E. 9 St., Cleveland, plans by Maier, Outcalt & Assocs., 13124 Shaker Square, Cleveland, 90 unit dormitory housing, Ohio 33284; 100 unit family housing. CD 9/29—ENR 10/7.

†Ore., Sheridan—Pub. Housing Auth., NHA, Skinner Bldg., 5 Ave. and Union St., Seattle, 1, Wash., 20 unit family housing.

O., Springfield—Springfield Rural School Dist., A. R. Smith, clk., school. $240,000.

†Pennsylvania—U. S. Eng., Standard Oil Bldg., Baltimore, Md. and Valley Forge Hospital, Phoenixville, bldg., Chester Co. $100,000.

†Pa., Chester—Federal Works Agency, 101 Park Ave., New York, N. Y., plans by H. R. Robinson, 1927 11 St. N.W., Wash., D. C., recreation bldg. $240,000.

†Pa., Sharon—Christian H. Buhl Hospital, plans by C. F. Owsley, 211 N. Champion St., Youngstown, O., nurses home addn., Pa. 36-211. $105,725. **FWA.** CD 10/27—ENR 11/4.

†Texas—U. S. Eng., 25 St. and Avenue F, Galveston, bldgs., Sol. 41-243-44-C76, Limestone Co.

Tex., Houston—J. N. Edy, city mgr., City Hall, motor shop incl. motor repair and garbage truck shelter, concrete slab fdn. and truck runways, shower facilities, $70,000. J. Turney, City Hall, dir. P. Wks.

Utah, Ogden—Ogden Bd. Educ., W. K. Hopkins, supt. City Schools, City Hall, bids soon shop bldg. at Ogden High School. $40,000.

†Va., Arlington—Federal Works Agency, 18 and F Sts. N.W., Wash., D. C., postponed bids to have been opened Nov. 4, high school, Va. 44-102. $280,000. CD 10/18—ENR 10/21.

†Va., Arlington—Pub. Housing Auth., NHA, 19 and D. Sts. N.W., Wash., D. C., 130 unit family dwellings, Va. 11-1.

†Va., Newport News—City, sketches made by Williams, Coile & Pipino, Newport News, two 2 story, brick, cinder block fire stations, Va. 44-346, one at 30 St. and Virginia Ave., and other at Hampton and Wickham Aves. $152,000 **FWA.**

†Wash., Keyport—Pub. Housing Auth., NHA, Skinner Bldg., 5 Ave. and Union St., Seattle, Zone 1, plans by Johansen, Bain, Brady & Grainger, Smith Tower, Seattle, 4, 215 unit housing, Wash. 45246. CD 11/1—ENR 11/4.

†Wash., Seattle—Pub. Housing Auth., NHA, Skinner Bldg., 5 Ave. and Union St., 100 unit family housing, Wash. 45245; 500 unit housing, Wash. 45244.

†Wash., Wilkeson—Pub. Housing NHA, Skinner Bldg., 5 Ave. and Union Seattle, 14 unit dormitory housing Wash. 45247.

W. Va., Grafton—City, plans L. D. Schmidt, 309 Cleveland Ave., hospital completion. $200,000.

★**Ont., Toronto (North York)**—Dpt. sions & National Health, Ottawa, hospital on Sunnybrook Farm, North About $1,000,000.

BIDS ASKED

Bids Asked November 15

†Md., Elkton—Pub. Housing Auth. Temporary Bldg. 2, 19 and D Sts. Wash., D. C., lighting and heating, Md. G. Morris Whiteside, 2nd, duPont Wilmington, Del., archt.

★**†Pa., Sharon and Farrell**—Pub. Auth., NHA, 270 Bway., New York N. Y., 150 unit permanent family Pa. 20-1. $750,000. CD 10/20—ENR

Bids Asked About November 16

†Conn., Hartford—Pub. Housing NHA, 24 School St., Boston, Mass., gutters for housing, Conn. 6123. Storrs & Co., 343 Fairfield Ave., archts.

Bids Asked November 16

†Md., Baltimore—At office Federal Agency, 601 State Planters Bank Bldg., mond, 19, Va., general contract school Fairfield Section, Md. 18-197, $36,723 allot. Plans deposit $5. H. R. Robinson, 11 St. N.W., Wash., D. C., archt. CD —ENR 10/28.

†S. C., Greenville—Office Bd. Comrs. ville Co., County Court House, health SC 38-217. **FWA.** Plans deposit $5.

Ont., St. Thomas—R. Donald, dpt. tions & Supply, Ottawa, alterations at Hospital, No. 4 Highway, constructing nical training school and addnl. accommodation, $150,000.

Bids Asked After November 16

†Pa., Scott Twp.—Allegheny County ing Auth., 201 County Office Bldg., burgh, site imprvs., Pa. 36212; for Plans deposit $25.

Bids Asked November 19

O., Berea—City, R. Kobie, dir. Pub. City Hall, 3 story, 45x80 ft., brick, rein. light plant addn. Plans deposit $20. Kammerer & Assoc., 1900 Euclid Ave., land, engrs. CD 9/7—ENR 9/9.

†Va., Newport News—Pub. Housing NHA, Temporary Bldg. 2, 19 and D Sts. Wash., D. C., theatre, playground, child and community bldg., recreation bldg. housing, Va. 44067. Williams, Coile & Melson Bldg., archts.

†Va., Norfolk—Pub. Housing Auth. Temporary Bldg. 2, 19 and D Sts. Wash., D. C., special commercial bldg. ant activity bldg., child care bldg., Va. A. M. Lublin, Dickson Bldg., archt.

Bids Asked November 20

†Calif., Richmond—Pub. Housing NHA, 785 Market St., San Francisco, family dwelling units, Calif. 4761. K. bett, 54 Market St., E. T. Spencer, 39 Pine and E. Geoffrey Bangs, 605 Market St. Francisco, archts. CD 9/13—ENR 9/16.

Bids Asked November 21

†Mich., Pontiac—Pub. Housing Auth. 2073 E. 9 St., Cleveland, O., 100 unit porary family dwellings, Mi. 20219. deposit $50. Extended date. Francis Co., Eddy Bldg., 303 Eddy Bldg., engr.-archt. CD 11/4—ENR 10/28.

Bids Asked November 22

†Mich., Benton Harbor—Pub. Auth., NHA, 2073 E. 9 St., Cleveland, 125 unit temporary family dwellings 20220. **Plans deposit $50.** Extended E. Smith, 208 Murphy Bldg., Highland archts. CD 10/8—ENR 10/14.

Bids Asked After November 22

†Pa., Chambersburg—Pub. Housing NHA, 270 Bway., New York, 7, N. Y., unit family dwellings, Pa. 36436. Plans posit $50. CD 9/9—ENR 9/16.

Bids Asked November 23

†Ala., Tuscumbia—Pub. Housing Georgia Savings Bank Bldg., Peachtree Broad Sts., Atlanta, Ga., 100 family units, Ala. 1219. Plans deposit $50. Frahn, 1609 Empire Bldg., Birmingham, CD 11/3.

†La., Lake Charles—Federal Works Electric Bldg., Fort Worth, 2, Tex., La. 16-250-F, Dunn & Quinn, Lake archts. CD 10/22—ENR 10/28.

†La., Leesville — Federal Works Electric Bldg., Fort Worth, Tex., 2 tion centres, one, La. 16-249, $42,800, other, La. 16-248, $32,000. Plans deposit each. Dunn & Quinn, 827 Hodges St., Charles, archts. CD 10/21—ENR 10/28.

†Md., Elkton—Pub. Housing Auth. Temporary Bldg. 2. 19 and D Sts Wash., D. C., permanent child care bldg. 18151.

LIC BLDGS. (Bids Asked, Cont'd.)

Bids Asked November 23

Brecksville—Veterans Admin., Vermont between H and I Sts. N.W., Wash., outside services for Apartment Build- for Veterans.

ls., **Kenosha**—Pub. Housing Auth., NHA, N. Wells St., Chicago, Ill., 260 unit tem- row houses, Wis. 47072. Extended F. J. Hoffman, 201 6 St., Racine, archt. 0/26—ENR 10/28, under BA.

Edmonton—Secy. Dpt. P. Wks., Ot- Ont., University Hospital annex. About 000. Plans deposit $50.

Bids Asked November 24

Leesville—Federal Works Agency, 18 F Sts. N.W., Wash., D. C., 1 story, brick tal. Dunn & Quinn, 827 Hodges St., Charles, archts. CD 10/13—ENR 10/21.

Y., **New York**—Dpt. P. Wks., Municipal Zone 2, conversion of male dormi- into hospital for venereal diseases, vue Hospital, 1 Ave. and 29 St.; conver- Convalescent Day Camp into rehabilita- facility for hospital for venereal diseases elfare Island, War Pub. Works Project 30-247. Plans deposit $10 each set. I. V. A. Huie, comr. Dpt. P. Wks.

d., **Edgewood**—Pub. Housing Auth., Temporary Bldg. 2, 19 and D Sts. N.W., D. C., commercial bldg., Md. 18159.

Bids Asked November 25

Akron—Pub. Housing Auth., NHA, E. 9 St., Cleveland, 170 unit mobile unit ng, Ohio 33280-B. Plans deposit $50. ciated Housing Architects, First Central r, archts. CD 10/26—ENR 10/28.

Bids Asked November 26

Elyria—Lorain Metropolitan Housing Central Dr., Lorain, 40 unit housing, 33262, for NHA. Plans deposit $50. 9/30 rejected. Garfield, Harris, Robin- Schafer, 915 National City Bldg., Cleve- archts. CD 9/8—ENR 7/29.

Lorain—Lorain Metropolitan Housing Central Dr., Lorain, 60 unit permanent dwellings, Ohio 33261, for NHA. Plans it $50. Bids 9/17 rejected. Garfield, is, Robinson & Schafer, 915 National Bldg., Cleveland, archts. CD 10/20— 10/28, under LB.

D., **Provo**—Pub. Bldgs. Admin., 1 and s. N.W., Wash., 25, D. C., 300x110 to t. school addn. **FWA.** P. C. Bettenburg ., 1437 Marshall Ave., St. Paul, Minn., s. CD 11/1—ENR 11/4.

Bids Asked November 30

., **Lexington**—W. P. Hogarty, dir. Div. hase & Pub. Properties, 230 New State Bldg., Frankfort, reconstructing front on Male Ward Bldg. 2, Eastern State ital. Plans deposit $25. P. S. Sinto, 110 State Office Bldg., Frankfort, ch. engr.

Bids Asked December 4

Akron—Pub. Housing Auth., NHA, 2073 St., Cleveland, 165 mobile unit housing, 33280-C. Plans deposit $50. Associated ing Architects, First Central Tower, s. CD 10/26—ENR 10/28.

Bids Asked December 10

d., **Indianapolis**—Pub. Housing Auth., 201 N. Wells St., Chicago, Ill., 200 family housing, Ind. 12180. $400,000. en, McGuire & Shook, 1001, Farm Bureau ., archts. CD 10/26—ENR 10/28.

Bids Asked

e., **Presque Isle**—Pub. Housing Auth., 24 School St., Boston, Mass., altering dgs., constructing fuel storage facilities, 17051.

assachusetts—U. S. Eng., 31 St. James Boston, (selected list bidders), bldg. ations, No. 19-023-44-NEG 104. $20,000.

ich., **Willow Run**—Pub. Housing Auth., 2073 E. 9 St., Cleveland, O., frame nistration bldg., carpenter shop, motor ce repair bldg., 2 sheds and storage Skidmore, Owings & Merrill, 104 S. igan Ave., Chicago, Ill., archts.

., **Arlington**—Federal Works Agency, 18 F Sts. N.W., Wash., D. C., high school, 44-912. $279,000.

., **Williamsburg**—Pub. Housing Auth., Temporary Bldg. 2, 19 and D Sts. Wash., D. C., 622 unit family dwell- Va. 44302; 556 unit dormitory housing, 44303.

BIDDERS

Calif., Richmond—Housing Auth. of City Richmond, Administration Bldg., Atchi- Village, Nov. 5, 368 family dwelling Calif. 4763, for NHA, from S. J. roso Constr. Co., 2136 Alemany Blvd., Francisco, **$683,200.** CD 9/3—ENR 9/9.

alif., Richmond—Housing Auth. of City ichmond, Administration Bldg., Atchison ge, Nov. 5, 248 family dwelling units, 4764, for NHA, from Robert McCarthy 1050 Kirkham St., San Francisco, 00. CD 9/28—ENR 9/30.

Calif., Richmond—Housing Auth. of ity of Richmond, Administration Bldg., son Village, Nov. 5, 494 family dwelling Calif. 4762, for NHA, from Standard ing Co., 1500 Judah St., San Francisco, 02. CD 9/28—ENR 9/30.

onn., **Waterbury**—Pub. Housing Auth., 24 School St., Boston, Mass., Nov. 1, housing, Conn. 6041 and 6206, from City Constr. Co., 955 Main St., Bridgeport, **$363,748.** CD 10/21—ENR 9/9.

†Ind., Evansville—Pub. Housing Auth., NHA, 201 N. Wells St., Chicago, Ill., Oct. 29, 150 unit housing, Ind. 12177, from Blauner Constr. Co., 189 W. Madison St., Chicago, Ill., **$432,-300.** CD 10/20—ENR 10/14.

†Ind., Evansville—Pub. Bldgs. Admin., 18 and F Sts. N.W., Wash., 25, D. C., Nov. 3, hospital addn. and nurses' home, at Protestant Deaconess Hospital, 614 Mary St., from Jno. B. Gutmann Constr. Co., Wainwright Bldg., St. Louis, Mo., **$208,500. FWA.** CD 10/8—ENR 10/14.

★**†O., Akron**—Pub. Housing Auth., NHA, 2073 E. 9 St., Cleveland, 500 unit temporary family dwellings, Ohio 33279, Bid A, frame dry wall construction, from James McHugh, 6440 S. Park St., Chicago, Ill., **$1,615,985;** Bid C, factory prefabricated, from A. P. Miller, Inc., 3333 Arctic Ave., Atlantic City, N. J., **$1,537,000.** CD 9/29—ENR 10/7.

†O., Dayton—Pub. Housing Auth., NHA, 2073 E. 9 St., Cleveland, Oct. 29, 640 unit dormitory housing, Ohio 33286, from Frank Messer & Sons, 2515 Burnet Ave., Cincinnati, **$496,621.** CD 10/19—ENR 10/21.

†O., Osborn—Pub. Bldgs. Admin., 18 and F Sts. N.W., Wash., D. C., Nov. 4, recreation bldg., Ohic 33-220, from M. J. Roche Constr. Co., Shaw and Wasson Sts., Cincinnati, **$56,880. FWA.** CD 10/27—ENR 10/14.

†Tenn., Humboldt — City, G. Foltz, mayor, Oct. 29, brick, concrete hospital, Tenn. 40-183, from Dykes, Powers & Gerhardt, Box 69, Clarksville, **$342,500. FWA.** CD 10/7—ENR 10/14.

★**†Wash., Seattle**—Pub. Housing Auth., NHA, Skinner Bldg., 5 Ave. and Union St., Seattle, Zone 4, Oct. 29. 240 unit family housing, Wash. 45240, and 72 unit dormitory housing Wash. 45241, for King Co. Housing Auth., 4 and Cherry Bldg., from Nettleton & Baldwin, 6803 Fox St., Zone 8, **$518,000.** CD 10/19—ENR 10/14.

†Wash., Vancouver—Pub. Bldgs. Admin., 18 and F Sts. N. W., Wash., D. C., Nov. 5, school bldgs. at McLoughlin Heights, Burton Homes, Bagley Downs and Ogden Meadows, from Waale-Camplan Co., 2100 S.W. Jefferson St., Portland, Ore., **$438,100. FWA.** CD 10/12—ENR 10/14.

CONTRACTS AWARDED

†California—U. S. Maritime Comn., Financial Center Bldg., Oakland, Utility Bldg. 3, to Moore & Roberts, 693 Mission St., San Francisco. CD 9/17.

†Calif., San Diego—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., completion unfinished work on NOY 5440, bldg., Destroyer Base, NOY 7484, to Macco Constr. Co., 815 Paramount Blvd., Clearwater, **$284,130.** CD 9/24—ENR 9/30.

†Calif., San Francisco—Home Owners' Loan Corp., 821 Market St., San Francisco, converting loft bldg. at Sutter and Gough Sts., into 139 living units, Case No. W4A-1122, to O. M. Rousseau, 321 Kearny St. Est. over **$250,000.**

†Colorado—U. S. Eng., 903 17 St., Denver, bldgs., Denver Co., to N. G. Petry, Denham Bldg., Denver, **$50,000.**

†Connecticut—Chance Vought Aircraft Div., United Aircraft Corp., 550 Main St., Stratford, brick, concrete, steel boiler plant, to Hewlett Constr. Co., 686 Lindley St., Bridgeport. Est. **$40,000.** Defense Plant Corp. will finance. Bids 10/28. CD 10/25.

†D. C., Wash.—Pub. Housing Auth., NHA, Temporary Bldg. 2, 19 and D Sts., N.W., 40 family dwellings, D. C. 49065, to Iron & Reynolds, Inc., Barr Bldg., **$161,441.** Awarded 10/29.

★**†Ga., Brunswick** — Pub. Housing Auth., NHA, Georgia Savings Bank Bldg., Peachtree and Broad Sts., Atlanta, completion of work, housing, Ga. 9151, to Daniel Constr. Co., Greenville, S. C., approx. **$1,897,813,** cost plus fixed fee. CD 6/20—ENR 7/22, under CA.

★**†Ill., Chicago**—Chicago Housing Auth., 208 S. La Salle St., 1,500 unit housing, Ill., 2-7, for NHA, to B-W Constr. Co., 307 N. Michigan Ave., and Sherry-Richards Co., 201 N. Wells St., **$7,597,000.** Bids 10/19. CD 10/22—ENR 10/28.

†Ia., Burlington.— Pub. Housing Auth., NHA, 201 N. Wells St., Chicago, Ill., sidewalk and street construction in connection with 2 war housing, to Carl A. Nelson & Co., Burlington, **$35,889.**

†Me., Portland—Pub. Housing Auth., NHA, 24 School St., Boston, Mass., 60 unit dwellings, Me. 17035, to John Basile & Co., Inc., 429 Park Square Bldg., Boston, Mass., **$184,934.** Bids 10/29. CD 11/3 under LB—ENR 5/7/42.

†Me., Portland—Pub. Housing Auth., NHA, 24 School St., Boston, Mass., site imprvs., sewage treatment plant, addns. to collection stations, Me. 17034, to S. Aceto, 40 Preble St., **$36,819.** Bids 10/28. CD 11/3 under LB—ENR 10/14.

†Maryland—Bethlehem Steel Co., Sparrows Point, bldg. addn., to Consolidated Engineering Co., 20 E. Franklin St., Baltimore, **$50,-000.** Federally financed.

†Maryland—Glenn L. Martin Co., Middle River, hydraulic testing laboratory, to Consolidated Engineering Co., 20 E. Franklin St., Baltimore. Federally financed.

★**†Maryland**—U. S. Eng., 1 and Douglas Sts. N.W., Wash., D. C., temporary frame bldgs., Contr. 977-Eng-1861, to W. B. Avery, 629 F St. N.W., Wash., D. C., **$400,000;** roads taxiways, aprons, parking areas, Contr. 977-Eng-1855, to Larkin Co., Inc., Camp Hill, Pa., **$400,000,** foregoing in Prince Georges Co.

★**†Michigan**—Mueller Brass Co., Port Huron, design and construction, brick, steel, rein.-con. factory bldg. (plant addn.), to Austin Co., 429 Curtis Bldg., Detroit. Est. **$1,500,000.** Defense Plant Corp. will finance. CD 11/1—ENR 11/4.

†Michigan—U. S. Eng., 700 Union Guardian Bldg., Detroit, 31, T. O. and mobilization type bldgs., Wayne Co., to Haberkorn-Barry Co., 719 Boulevard Bldg., Detroit, less than **$1,-000,000.**

★**†Missouri**—Defense Plant Corp., 811 Vermont Ave. N.W., Wash., D. C., design and construction alcohol plant to Sanderson & Porter, engrs. and builders, 1111 Rialto Bldg., Kansas City, Mo. Est. **$4,000,000.** Work underway. National Distillers Products Corp., 120 Bway., New York, N. Y., will operate. CD 3/26—ENR 4/1.

†Missouri—U. S. Eng., 10 E. 17 St., Kansas City, Mo., bldgs., Buchanan Co., to Lehr Constr. Co., 2115 Frederick St., St. Joseph. Est. under **$100,000.**

★**†Neb., Hastings**—Pub. Housing Auth., NHA, Dierks Bldg., 1006 Grand Ave., Kansas City, Mo., 50 dwellings (260 units) housing, Neb. 25074, to Paul Steenberg Constr. Co., W. 1757 First Natl. Bank Bldg., St. Paul, Minn., **$734,000.** Bids 10/18. CD 10/21—ENR 10/28, under LB.

†New York—U. S. Eng., 120 Wall St., New York, Zone 5, bldg. alterations, addns., Dutchess Co., to Iglehart, Caldwell & Scott, Inc., 90 Broad St., New York.

†New York—U. S. Eng., 120 Wall St., New York, 5, housing Contr. 30-075-Eng-204, Suffolk Co., to Wheeler Engr. Co. Inc., 369 Lexington Ave., New York, **$300,000.**

†North Carolina—U. S. Eng., 308 Customhouse, Wilmington, bldg. addn., alterations, Iden. 31-075-44-50, Onslow Co., to W. A. Foster, Burlington, under **$50,000.** Bids 10/26.

★**†O., Berea**—Pub. Housing Auth., NHA, 2073 E. 9 St., Cleveland, 500 unit temporary family dwellings Ohio 33266, to Welso Constr. Co., 2233 W. Grand Ave., Chicago, Ill., **$1,545,945.** Bids 10/9. CD 10/13—ENR 10/21 under LB.

†Okla., Norman—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., addnl. wards, Naval Hospital, dressing and shower rooms and building for swimming pool, NATTC, NOY, 8075, to Ditmars-Dickmann Constr. Co., 804 Barnes Bldg., Muskogee, **$223,890.**

†Oregon—Pub. Housing Auth., NHA, Skinner Bldg., 5 Ave. and Union St., Seattle, 1, Wash., 24 unit housing, No. 60015, at Redmond (Deschutes Co.), 32 unit housing No. 60016, Albany (Linn Co.) and 40 unit housing No. 60017, Bend (Deschutes Co.), to J. Jansen, Roseburg, **$350,000.** Awarded 10/12. Stanton-Johnston, Railway Exchange Bldg., Portland, archts.

★**†Texas** — Consolidated Vultee Aircraft Corp., Grants Lane, Fort Worth, experimental bldg. addn., to The Austin Co., Grants Lane, Fort Worth. **$1,250,000.** Federally financed.

†Texas—U. S. Eng., Fort Sam Houston, bldgs., Spec. 977, Bexar Co., to Hill & Combs, 321 Melrose Pl., San Antonio, over **$40,000.**

†Texas—U. S. Eng., Fort Sam Houston, bldg., Webb Co., to L. Christy, 503 Builders Exchange Bldg., San Antonio, **$44,801.** Bids 11/3.

†Tex., Port Arthur — Pub. Housing Auth., NHA, 1205 Electric Bldg., Seventh and Taylor Sts., Fort Worth, trailer camp facilities, incl. WW, bridges, etc., Tex. 41-621 to Glade Constr. Co., Hickman Hotel, Fort Worth, **$25,-724.** CD 10/8—ENR 10/14.

†Va., Quantico—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., infirmary headquarters and officers' quarters bldg., P-X, and recreation bldg., 2 storehouses, Marine Base, NOY 7947, to Chas. H. Tompkins Co., 907 16 St. N.W., Wash., D. C., **$191,100.** Bids 10/27. Murphy & Locroft, 1413 H St. N.W., Wash., D. C., archts.

†Wyo., Cheyenne—Home Owners' Loan Corp., Pacific Bldg., San Francisco, Calif., 50 to 52 unit housing conversion, to Newstrom-Davis & Co., 2000 W. 8 Ave., Denver, Colo. **$200,000.** W. W. Bowman Co., Insurance Bldg., Denver, Colo., archts

Que., St. Georges West—Asile du Bon Pasteur, Quebec City, 4 story, brick, concrete hospital, to N. Rancourt, St. Georges West, approx. **$150,000**.

Que., St. Georges West—Good Shepherd Bd., St. Georges West, 4 story, brick hospital concrete fdn., to N. Rancourt, Notre Dame St., **$150,000.**

COMMERCIAL BUILDINGS

PROPOSED WORK

Ia., Council Bluffs—Mercy Hospital, Sister M. Alberta, supt., nurses training home, $100,000. Applied for FWA funds.

Ia., Decorah—Luther College, K. Hanson, bus. mgr., sketches by C. Altfillisch, Decorah, rebuilding administration bldg. $250,000.

COMMERCIAL BLDGS. (Proposed Work, Cont'd.)

La., New Orleans—Pearl Homes, Inc., New Orleans, plans by Geo. Riehl, 4630 Orleans Ave., duplexes, facilities, utilities, etc. $150,000.

★ **O., Cleveland**—Forest City Hospital Assn., Dr. V. G. Mason, pres., 216 E. 93 St., Cleveland, hospital, $500,000.

O., Cleveland—L. J. Healy, 2636 Noble Rd., twenty-five 1½ story, bsmnt., 25x29 ft., brick dwellings. $6,000 ea.

★ **O., Warren**—Eastern States Homes, Inc., N. Winston, pres., A. Holzer, vice pres., 22 W. 48 St., New York, N. Y., soon lets contract, eighty-seven 2 story, bsmnt., 26x34 ft., brick duplex dwelling incl. site imprvs., grading, sewer, water lines and concrete sidewalks. To exceed $1,000,000. Junior W. Everhard, 9219 Clifton Rd., Cleveland, archts. Alexander Crosett & Assocs., 512 5 Ave., New York, N. Y., engrs. CD 7/16—ENR 7/22.

★ **Tex., Dallas** — Western Hills Realty Co., 2717 Kendale St., plans by H. S. Avery, 2717 Kendale St., two hundred seventeen 1 story frame dwellings. $800,000.

Tex., Goose Creek—A. H. Boehm, Jr., Pelly, 50 frame type dwellings. Over $150,000.

★ **Tex., Houston**—Frank W. Sharp Constr. Co., 1505 4 St., plans by H. H. Alexander, 4904 Laurel St., 526 hollow tile, frame type dwellings, incl. water, sewer, street paving, sewer disposal facilities, etc. $1,500,000.

Tex., San Antonio—L. G. Hodges, c/o Campbell Lumber Co., 1339 S. Flores St., 2 story duplexes. $150,000.

Wash., Vancouver—Vancouver Development Co., 215 Washington St., plans by D. Hilborn, 307 E. 10 St., 38 permanent court type, apartment units. $250,000.

CONTRACTS AWARDED

Conn., Fairfield—Lakeview Acres, Inc., G. J. Morell, agt., Boston Post Rd. at Hulls Hy., 21 frame dwelling units, Arbor Terrace, Arbor Dr. and Hulls Hys. Owner builds. **$150,000.**

La., New Orleans—Algiers Homes, Inc., Algiers, 50 one story, frame, single residences, Shirley Dr., near Coppernicius and Saix Sts., Algiers, near here, to E. L. Brehm, 1100 Shirley Dr.

Me., Portland—Fernald Park Corp., c/o contractor, thirty-one 1 story, 22x32 ft., frame houses, Washington Ave. and Fernald St., to Benson & Grant, Cumberland Center, **$155,000.**

Md., Hyattsville—Garfield Court, Inc., 5920 3 St. N.W., Wash., D. C., five 2 story, brick, concrete block apartment bldgs., to Peabody Builders, Inc., c/o owner. Ross and Walton, 5223 Baltimore Ave., archts.

Md., Middle River—Edgewater Apartment Corp., Middle River or c/o Hal A. Miller & Assoc., archts., 421 St. Paul Pl., Baltimore, 1 story, irregular shaped shopping center, consisting 7 stores and super market, to Middle River Constr. Co., Middle River. Est. **$150,000.**

N. J., Cranford—Kahlcrest, Inc., 626 Central Ave., East Orange, 5 unit, (80 family) apartment bldg., to Walter Harring Engrs., 626 Central Ave., East Orange, **$325,000.** McMurray & Schmidlin, 968 Stuyvesant Ave., Union, archts.

N. J., Elizabeth—Baldwin Homes, Inc., 2301 Summit Terrace, Linden, four 2 story, concrete block, brick apartment bldgs., to R. Theisz, 835 Woodland Ave., Plainfield, **$156,000.** A. Silberstein, 24 Milliam St., Newark, archt.

N. J., Irvington—Palent Constr. Co., 29 Webster Ave., 1½ story, concrete block, masonry residences, separate contracts, **$240,000.** M. Kimmel, 262 Renner Ave., Newark, archt.

N. J., Nutley—Greylock Apartments, 17 Academy St., Newark, 2 story, brick garden apartment, separate contracts, **$350,000.** Wm. Lehman, 972 Broad St., Newark, archt. CD 8/23—ENR 8/26.

★ **N. J., Trenton**—Brunbrook Bldrs., 1776 Bway., New York, N. Y., 1 story, 125-150 unit, brick apartment bldgs., separate contracts, **$600,000.**

★ **R. I., Quonset Point**—Plantation Housing Corp., 705 Industrial Trust Bldg., Providence, one hundred 24x31 ft. homes, to F. A. MacSheffray Co., 705 Industrial Trust Bldg., Providence, **$540,000.**

★ **Tenn., Knoxville**—E. Worsham, c/o contractor, 200 residences, to Worsham Bros. Constr. Co., Medical Arts Bldg., about **$1,000,000.**

Tex., Corpus Christi—Roy Self, Corpus Christi, fifty-nine 1 story dwellings, facilities, utilities. Owner builds, **$150,000.** CD 10/29—ENR 11/4.

Tex., Houston (Galena Park area)—Baldwin-Sheets Co., Electric Bldg., seventy-eight 1 story dwellings. Owner builds. **$350,000.** CD 10/28—ENR 11/4.

★ **Va., Portsmouth**—Carver Homes, Inc., c/o contractor, eleven 2 story garden apartments, Virginia Ave., to Silbert Constr. Co., 1230 Virginia Ave. Est. **$500,000.** E. Tucker Carlton & R. Clark, Dickson Bldg., archts.

INDUSTRIAL BUILDINGS

PROPOSED WORK

Conn., Bridgeport — GARAGE, etc. — Gray Line Bus Corp., 137 Dover St., 2 story, 95x100 ft. bus garage and office bldg. $45,000.

Ill., Harvey—PLANT—Allied Steel Casting Co., 147 St. and Lincoln Ave., plans nearing completion 1 story, 125x300 ft., brick, steel heat treating plant addn. $100,000. R. H. Maveety, 53 W. Jackson Blvd., Chicago, engr.

Ia., Oskaloosa—PLANT—Iowa Valve Co., Oskaloosa, mfg. plant addn.

Neb., Omaha—FLOUR MILL—Omar, Inc., 1910 Harney St., soon lets contract, flour mill. Perkins, Wheeler & Will, 222 N. Bank Dr., Chicago, Ill., archts.

Tex., Barker (near Houston)—DAIRY—D. W. Barnhill, Richmond, dairy, incl. equip., bldgs., water facilities, etc. Over $40,000.

Tex., Ennis—PLANT—Donovan Mfg. Co., Ennis, ready-to-wear garment mfg. plant. Over $40,000.

Tex., Ennis—Plant—Pool Bros. Mfg. Co., Ennis, infants' and children's clothing plant expansion. Over $40,000.

Tex., Henderson—FROZEN-FOOD LOCKER PLANT—Rusk Co. Frozen Food Locker, Inc., Henderson, frozen-food locker plant, facilities, $40,000

Tex., McAllen — PLANT — Reagan Canning Co., 17 N. 22 St., 1 and 2 story vegetable and citrus canning and packing plant. $40,000.

Tex., Marshall—PLANT—Marshall Engineering Co., Marshall, c/o Maderas Steel Corp., Longview, converting training shops into steel mfg. plant. Over $40,000.

Wash., Spokane—BREWERY—Golden Age Breweries, B. Goldstein, pres., N. 301 Sheridan St., brewery addn. $125,000.

Wis., Manitowoc—WAREHOUSE—Lakeside Packing Co., 508 Jay St., 1 story, 135x150 ft. warehouse.

Wis., Menasha — WAREHOUSE — John Strange Paper Co., Menasha, rebuilding 3 story warehouse, destroyed by fire.

Wis., Mondovi — PLANT — Land O'Lakes Creameries, Inc., J. Brandt, pres., 2201 N.E. Kennedy St., Minneapolis, Minn., milk drying plant. $200,000.

Wis., Richland Center—HEATING PLANT, etc.—Richard Hospital, soon lets contract, 2 story, 30x48 ft., brick heating plant and laundry bldg. E. A. Stubenrauch, 708 Erie Ave., Sheboygan, archt. CD 7/20—ENR 7/22.

Wis., Waukesha—PLANT—Waukesha Motor Co., 1 story, 84x147 ft., plant addn., and 14x384 ft. loading platform.

Alta., Edmonton—PLANT—Pekisko Petroleum, Ltd., Edmonton, plant.

Alta., Edmonton—PLANT—Sturgeon Lake Timber Co., Ltd., Edmonton, lumbering plant, saw mill, etc. $40,000.

B. C., Vancouver—MILL, etc.—North Shore Shingle Co. Ltd., 1208 Dominion Bank Bldg., shingle mill and allied plant. $40,000.

Ont., Chatham—MILL—F. Green, Chatham, sorghum and cane mill, imprv. existing structures. $40,000

Ont., Fort William—MARINE TERMINAL, etc.—Canadian Oil Co's., Ltd., Terminal Warehouse Bldg., Toronto, marine terminal and bulk oil storage bldg. $50,000. W. C. connap, Elmwood, Winnipeg, Man., distr. mgr.

Ont., Fort William—STORAGE—Can. Oil Co. Ltd., Terminal Bldg., Toronto, bulk storage bldg., on Number 1 Island. $50,000.

Ont., Oakville—PLANT—Gordon Beardmore & Co. Ltd., Oakville, plant remodeling, addn. $40,000.

Ont., Toronto—FACTORY—Parmaco Products Ltd., c/o B. Biback, 1719 Bathurst St., factory. $40,000. Architect, c/o M. Rosenstein, 87 Boyden St.

Ont., Trenton—PLANT—Central Bridge, Ltd., Trenton, plant. exten.

Ont., Walkerton — FACTORY — Bogden & Gross Furniture Co., Ltd., Walkerton, furniture factory.

Que., Huntingdon—MILL—H. Woolen Mills Ltd., Huntingdon, mill. $40,000.

Que., Montreal—FACTORY—Imperial Novelty Mfg. Co. Ltd., c/o M. Bloom, 389 St. Paul St. W., factory exten. $40,000.

Que., Montreal—PLANT—R. E. Cox, 474 St. Alexis St., 40x94 ft. printing plant.

Que., Montreal—PLANT—Prest-O-Lite Co. of Canada, Ltd., 159 Bay St., Toronto, Ont., acetylene plant. $120,000.

BIDS ASKED

Pa., Irwin—STORAGE and FEED MILL—Altman Feed Co., C. Altman, owner, G. Altman, in charge, Pennsylvania Ave., 5 story, bsmnt., 31x60 ft., rein.-con., steel, cement block or brick storage and feed mill.

Que., Montreal East—PLANT—Can. Copper Refineries, Ltd., Royal Bank Bldg., Toronto, Ont., 1 story, 20x60 ft., steel frame plant addn., concrete fdn. $40,000.

CONTRACTS AWARDED

Ill., Chicago—FACTORY—Howard Foundry Co., 1700 N. Kostner St., 1 story, 124x217 ft., brick factory addn., to Freevol-Smedberg Co., 5807 W. Chicago Ave. Est. **$98,233.** W. G. and A. W. Kreig, 180 Maplewood Rd., Riverside, archts.

Ill., Chicago—FACTORY—H. S. Kaiser Co., 3336 W. Franklin Blvd., rebuilding 1 story, 100x200 ft., brick, wood truss factory, sonry, carpentry contract, to Economy & Maintenance Co., 2149 N. Lincoln Ave. **$100,000.** CD 7/29—ENR 8/5.

Ia., Des Moines—PLANT—Koss Constr. S. W. 16 and Diagonal Sts., asphalt pa plant, own forces. **$50,000.**

Ia., Sioux City — FACTORY — Master Re gerator Locker System, Inc., 117-9 St., building factory, to H. S. Holtze Const. 2121 E. 4 St. Est. **$150,000.** CD 10/20— 10/28.

Mass., Cambridge—LABORATORIES, etc General Radio Co., 30 State St., laborator office, extensive alterations, to Lawson Oakes, Inc., 30 Huntington Ave., D. Des Granges, 49 Federal St., Boston, ar

N. H., Keene — FACTORY — New Engl Screw Co., Emerald St., brick factory, Em ald St., to Richard White Sons Co., Inc., Cherry Pl., West Newton, Mass., over Waghorne Brown Co., 44 School St., Bost Mass., engrs. CD 9/2—ENR 9/9.

N. J., Bayonne—BOILER PLANT—B cock & Wilcox Co., E. 3 St., 2 story, 14 ft., boiler mfg. plant (Bldg. 2 exten.), Chas. Christenseon & Son, 921 Bergen A Jersey City, **$45,000.**

N. J., Hoboken—BOILER HOUSE, etc.— ternational Rayon Yarns, Inc., 15 and Bloo field Sts., 1 story, brick, corrugated asbes boiler house and stack, to The Austin 19 Rector St., New York, N. Y., **$40,000.**

N. J., Trenton—FACTORY—Turbo Engine ing Corp., 43 Nottingham Way, altering 3 st factory bldg., to Karno-Smith, 149 State **$40,000.** Wm. Slack, 1401 State St., archt

O., Cleveland—FACTORY, etc.—Victore Instrument Co., J. Victoreen, pres., Hough Ave., 1 story, 90x140 ft. factory office bldg., to Bolton-Pratt Co., 1276 W. Est. **$90,000.** W. S. Ferguson Co., 2362 Euc Ave., engr. and archt.

O., Cleveland—GRINDING, etc.—Westi house Electric & Mfg. Co., L. A. Watt, loney Bldg., Pittsburgh, Pa., altering grind and shipping bldgs., to George A. Rutherf Co., 2725 Prospect Ave. Est. Awarded 11/4.

O., Niles—UTILITIES—Niles Steel Produ Co., Div. Republic Steel Corp., J. R. McEwe asst. purch. agt., Republic Bldg., Cleveland story, bsmnt., 50x150 ft., brick, steel utilit bldg., to Heller-Murray Co., 222 Rayen Youngstown. Est. **$60,000.** CD 10/1—E 10/7.

O., Tiffin—FACTORY—Basic Refractor Corp., factory addn., to M. Swisher, 1 Euclid Ave., Cleveland. McDonald Engine ing Co.. L. LaSalle St., Chicago, Ill., archt

Utah, Ogden—CREAMERY—Mutual Crea ery Co., 102 Twenty-Third St., creamery bl addns., alterations, to E. S. Paul, 1403 Thir Second St., **$49,296.** Bids 10/25. L. S. Hodg Eccles Bldg., archt.

Wis., Cedarburg—ENGINEERING, etc Kiekhaefer Corp., Western Ave., 1 sto bsmnt., 42x120 ft., rein.-con., brick, tile en neering and office bldg., to G. Hilgendo R. I., Thiensville. CD 10/6—ENR 10/14.

Wis., Clear Lake — CREAMERY — Farm Co-Op Creamery Co., Clear Lake, 1 sto 21x80 ft. and 15x47 ft., brick, tile cream addn., to Wm. Sadler, Clear Lake. Kling Hubbard & Gohn, 218 S. Barstow St., E Claire, engrs. and archts. CD 5/18—E 5/20.

Wis., Milwaukee—FACTORY—Allen-Brad Co., 136 W. Greenfield Ave., 6 story, bsmn 110x140 ft. and part 2 story, 70x140 factory addn., to Selzer-Ornst Co., 6222 State St., Wauwatosa. Est. **$400,000.** Fi hugh Scott, 724 E. Mason St., archt. CD 11

Wis., Milwaukee—FACTORY—Heil Co., W. Montana St., 1 story, 205x261 ft., ste brick factory addn., to Klug & Smith C 111 E. Wisconsin Ave., Zone 2. Est. CD 10/14—ENR 10/21.

Wis., Sparta—PLANT—R. W. Biel, Spar 2 story, 62x80 ft. and 32x62 ft. mill and f warehouse and mfg. plant, concrete blo concrete fdn., to A. Henningsen, Sparta.

Alta., Edmonton—ENGINE HOUSE—Nort ern Alberta Railways. Co., J. M. MacArth genl. mgr., Canadian Pacific R. R. Bld engine house, to H. G. MacDonald, Teg Bldg. Est. **$40,000.**

Ont., Hagersville — PLANT — Hagersvi Quarries Ltd., 2700 Dufferin St., Toron remodeling existing bldgs., day labor. R. M. Scrivener, 57 W. Bloor St., Toron engr. CD 11/4.

Que., Chambord — PLANT — Co-Operati Agricultural of Chicoutimi, Ltd., 5 Port Chicoutimi, plant addn., to Oscar Launieres, 14 Notre Dame St. Est. Lavoie & Delisle, 7 Racine St., Chicouti engrs. CD 7/1—ENR 7/8.

Que., Longueuil (Montreal) — PLANT Pratt & Whitney Co. Ltd., Longueuil, pla to Sutherland Const. Co. Ltd., 1440 St. Cat erine St. W., Montreal, **$42,000.** E. J. Turcott 1010 St. Catherine St. W., Montreal, archt.

Que., Montreal — FACTORY — Ayerst M Kenna & Harrison, Ltd., 485 McGill St., modeling factory, to A. F. Byers Constr. L 1226 University St., **$127,994.** Ross & Ma Donald, 1010 W. Ste. Catherine St., arch CD 10/21.

For Proposal Advertisements see p. 2

EN
NI
RCAR